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&lt;400&gt; 5023

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&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5024

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<210> 5030

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
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Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
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Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
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Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
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His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
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 <212> DNA  
 <213> Homo sapiens

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 Lys Arg Arg Ala Val Asp Trp His Ala Leu Glu Arg Pro Lys Gly Cys  
 35 40 45  
 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala  
 50 55 60  
 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro  
 65 70 75 80  
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr  
 85 90 95  
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly  
 100 105 110  
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met  
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 Cys Leu Asp Ile Gly Asn Gly Gln Arg Lys Asp Arg Lys Lys Thr Ser  
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<210> 5033  
 <211> 2888

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr  
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 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu  
 85 90 95  
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu  
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 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser  
 115 120 125  
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu  
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 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp  
 145 150 155 160  
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 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe  
 180 185 190  
 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro  
 195 200 205  
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp  
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 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly  
 225 230 235 240  
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 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg  
 260 265 270  
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro  
 275 280 285  
 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg  
 290 295 300  
 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly  
 305 310 315 320  
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His  
 325 330 335  
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu  
 340 345 350  
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser  
 355 360 365  
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln  
 370 375 380  
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala  
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<211> 2002
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

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Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
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Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
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Gln	Thr	Glu	Val	Leu	Leu	Gln	Pro	Asn	Pro	Ser	Ala	Arg	Val	Glu	Glu

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Phe	Leu	Tyr	Glu	Lys	Leu	Asp	Arg	Lys	Val	Pro	Ser	Arg	Val	Thr Asn
				85					90					95
Gly	Glu	Leu	Leu	Ala	Gln	Tyr	Met	Ala	Asp	Ala	Ala	Ser	Glu	Leu Gly
			100					105					110	
Pro	Thr	Thr	Pro	Tyr	Gly	Lys	Thr	Leu	Ile	Lys	Val	Ala	Glu	Ala Glu
		115					120					125		
Lys	Gln	Leu	Gly	Ala	Ala	Glu	Arg	Asp	Phe	Ile	His	Thr	Ala	Ser Ile
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Ser	Phe	Leu	Thr	Pro	Leu	Arg	Asn	Phe	Leu	Glu	Gly	Asp	Trp	Lys Thr
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Ile	Ser	Lys	Glu	Ser	Arg	Leu	Leu	Gln	Asn	Arg	Arg	Leu	Asp	Leu Asp
				165					170					175
Ala	Cys	Lys	Ala	Arg	Leu	Lys	Lys	Ala	Lys	Ala	Ala	Glu	Ala	Lys Ala
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Thr	Leu	Trp	Asn	Asp	Glu	Val	Asp	Lys	Ala	Glu	Gln	Glu	Leu	Arg Val
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Ala	Gln	Thr	Glu	Phe	Asp	Arg	Gln	Ala	Glu	Val	Thr	Arg	Leu	Leu Leu
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Glu	Gly	Ile	Ser	Ser	Thr	His	Val	Asn	His	Leu	Arg	Cys	Leu	His Glu
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Phe	Val	Lys	Ser	Gln	Thr	Thr	Tyr	Tyr	Ala	Gln	Cys	Tyr	Arg	His Met
				245					250					255
Leu	Asp	Leu	Gln	Lys	Gln	Leu	Gly	Ser	Ser	Gln	Gly	Ala	Ile	Ser Arg
		260					265						270	
His	Leu	Arg	Gly	His	His	Arg	Ala	Arg	Leu	Pro	Pro	Leu	Ser	Ser Thr
	275						280					285		
Ser	Pro	Thr	Thr	Ala	Ala	Ala	Thr	Met	Pro	Val	Val	Pro	Ser	Val Ala
	290					295					300			
Ser	Leu	Ala	Pro	Pro	Gly	Glu	Ala	Ser	Leu	Cys	Leu	Glu	Glu	Val Ala
305					310					315				320
Pro	Pro	Ala	Ser	Gly	Thr	Arg	Lys	Ala	Arg	Val	Leu	Tyr	Asp	Tyr Glu
				325					330					335
Ala	Ala	Asp	Ser	Ser	Glu	Leu	Ala	Leu	Ala	Ala	Asp	Glu	Leu	Ile Thr
		340						345					350	
Val	Tyr	Ser	Leu	Pro	Gly	Met	Asp	Pro	Asp	Trp	Leu	Ile	Gly	Glu Arg
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Gly	Asn	Lys	Lys	Gly	Lys	Val	Pro	Val	Thr	Tyr	Leu	Glu	Leu	Leu Ser
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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120

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180

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<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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<211> 616

<212> PRT

<213> Homo sapiens

<400> 5040

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			20					25				30			
Tyr	Leu	Gly	Ser	Gly	Gly	Trp	Arg	Phe	Ile	Arg	Val	Phe	Ile	Lys	Thr
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Ile	Arg	Arg	Asp	Ile	Phe	Gly	Gly	Leu	Val	Leu	Leu	Lys	Val	Lys	Ala
	50					55				60					
Lys	Val	Arg	Gln	Cys	Leu	Gln	Glu	Arg	Arg	Thr	Val	Pro	Ile	Leu	Phe
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Ala	Ser	Thr	Val	Arg	Arg	His	Pro	Asp	Lys	Thr	Ala	Leu	Ile	Phe	Glu
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Gly	Thr	Asp	Thr	His	Trp	Thr	Phe	Arg	Gln	Leu	Asp	Glu	Tyr	Ser	Ser
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Ser	Val	Ala	Asn	Phe	Leu	Gln	Ala	Arg	Gly	Leu	Ala	Ser	Gly	Asp	Val

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Arg Arg Asp Ala Leu Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala		
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Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala		
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Ser Pro Asp Pro Ser Leu Ser Leu Phe Cys Ser Gly Ser Trp Glu Pro		
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Gly Ala Val Pro Pro Ser Thr Glu His Leu Asp Pro Leu Leu Lys Asp		
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Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys		
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Gly Phe Arg Met Arg Pro Asn Asp Ile Val Tyr Asp Cys Leu Pro Leu		
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290	295	300
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Asp Asp Cys Ile Lys Tyr Asn Cys Thr Ile Val Gln Tyr Ile Gly Glu		
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370	375	380
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385	390	395
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Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp		
420	425	430
Gly Val Cys Ile Pro Cys Gln Pro Gly Glu Pro Gly Gln Leu Val Gly		
435	440	445
Arg Ile Ile Gln Lys Asp Pro Leu Arg Arg Phe Asp Gly Tyr Leu Asn		
450	455	460
Gln Gly Ala Asn Asn Lys Lys Ile Ala Lys Asp Val Phe Lys Lys Gly		
465	470	475
Asp Gln Ala Tyr Leu Thr Gly Asp Val Leu Val Met Asp Glu Leu Gly		
485	490	495
Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly		
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Glu Asn Val Ser Thr Thr Glu Val Glu Gly Thr Leu Ser Arg Leu Leu		
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Asp Met Ala Asp Val Ala Val Tyr Gly Val Glu Val Pro Gly Thr Glu		
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Gly Arg Ala Gly Met Ala Ala Val Ala Ser Pro Thr Gly Asn Cys Asp		

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&lt;210&gt; 5041

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5041

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&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

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Tyr Val Ser Leu Val	Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu		
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Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala		
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Leu Leu Glu Glu Asn Ser Thr Pro Gln Leu Ala Gly Ile Leu Ala Arg		
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Val Leu Asn Gly Glu Ala Pro Pro Ser Leu Gly Pro Ser Ser Val Ala		
645	650	655
Ser Pro Glu Asp Val Gln Ala Leu Met Tyr Leu Arg Gly Gln Leu Glu		
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Pro Gln Trp Lys Met Leu Gln Cys His Pro His Leu Val Ala		
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&lt;210&gt; 5043

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5043

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&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

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Thr Ser Lys Ser Leu Leu Pro Val Arg Ser Lys Glu Val Asp Val Ser			
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Lys Gln Leu His Ser Gly Gly Pro Glu Asn Asp Val Thr Lys Ile Thr			
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Lys Leu Arg Arg Glu Asn Gly Gln Met Lys Ala Thr Asp Thr Ala Thr			
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Arg Arg Asn Val Arg Lys Gly Tyr Lys Pro Leu Ser Lys Gln Lys Ser			
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Thr Gln Lys Val Glu Leu Leu Glu Lys Phe Arg Asp Asn Cys Leu Ala			
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Ala Ser Arg Gln Glu Ser Thr Thr Asp His Met Asp Ser Met Leu Leu			
195	200	205	
Leu Glu Thr Leu Gln Glu Glu Leu Lys Leu Phe Asn Glu Thr Ala Lys			
210	215	220	
Lys Gln Met Glu Glu Leu Gln Ala Leu Lys Val Lys Leu Glu Met Lys			
225	230	235	240
Glu Glu Arg Val Arg Phe Leu Glu Gln Gln Thr Leu Cys Asn Asn Gln			
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Met

&lt;210&gt; 5045

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5045

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<210> 5046  
 <211> 92  
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 Ser Leu Arg Leu Thr Ala Pro Ser Leu Trp Gly Gly Ser Val Ala Arg  
 35 40 45  
 Asp Met Val Ala Cys Cys Leu Phe Ser Cys Ser Ser Lys His Tyr Pro  
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 Tyr Met Gly Leu Glu His Lys Ala Ala Arg Asp Glu  
 85 90

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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

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			20					25					30		
Pro	Ala	Tyr	Ala	Tyr	Val	Leu	Thr	Val	Asn	Glu	Arg	Gly	Asn	His	Cys
			35				40					45			
Glu	Tyr	Cys	Phe	Thr	Arg	Lys	Glu	Gly	Leu	Ser	Lys	Cys	Gly	Arg	Cys
	50					55					60				
Lys	Gln	Ala	Phe	Tyr	Cys	Asn	Val	Glu	Cys	Gln	Lys	Glu	Asp	Trp	Pro
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<210> 5049
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<212> DNA
<213> Homo sapiens
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<211> 619

<212> PRT

<213> Homo sapiens

<400> 5050

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			20					25					30		
Gln	His	Val	Cys	Glu	Thr	Ile	Ile	Arg	Ile	Phe	Lys	Arg	His	Gly	Ala
		35					40					45			
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Glu	His	Asn	Glu	Ser	Ala	Leu	Phe	Met	Asp	His	Ser	Gly	Met	Leu	Val
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Ala Asn Asn Xaa Asn Ser Leu Ile Lys Gln Lys Thr Gly Ile Ala Gln
245      250      255
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Lys Lys Leu Gly Ile Lys Leu Gln Val Leu Ile Asn Leu Gly Leu Val
275      280      285
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290      295      300
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305      310      315      320
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325      330      335
Pro Val Pro Thr Ala Ile Gly Val Ser Ile Ala Ile Asp Lys Ile Ser
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355      360      365
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Thr Asp Glu Arg Asn Gly Arg Glu Ala Ser Asp Asn Leu Ala Val Gln
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485      490      495
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580      585      590
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610

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&lt;210&gt; 5051

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5051

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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His	Tyr	Thr	Ile	Gln	Arg	Asp	Leu	Asp	Gly	Thr	Cys	Ser	Leu	His	Thr									
			100					105					110											
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<211> 781
<212> DNA
<213> Homo sapiens
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<400> 5053

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<210> 5054

<211> 156

<212> PRT

<213> Homo sapiens

<400> 5054

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Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr	Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp
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&lt;210&gt; 5055

&lt;211&gt; 2520

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&lt;400&gt; 5055

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<211> 672

<212> PRT

<213> Homo sapiens

<400> 5056

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Asp	Asp	Asp	Asp	Thr	Ile	Ser	Ser	Ser	Pro	Asp	Ser	Ala	Val	Ser	Asn	
			340					345					350			
Thr	Ser	Leu	Val	Pro	Gln	Ala	Asp	Thr	Ser	Gln	Asn	Thr	Ser	Phe	Asp	
		355				360						365				
Gly	Ser	Leu	Ile	Gln	Lys	Met	Gln	Ile	Pro	Thr	Leu	Leu	Gln	Glu	Pro	
		370				375					380					
Leu	Ser	Asn	Ser	Leu	Lys	Ile	Ser	Asp	Ile	Ile	Thr	Arg	Asn	Thr	Asn	
385					390					395					400	
Asp	Pro	Gly	Val	Gly	Ser	Lys	His	Leu	Met	Glu	Gly	Gln	Lys	Ile	Ile	
			405						410					415		
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<211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 5058  
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 Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala  
 35 40 45  
 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu  
 50 55 60  
 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile  
 65 70 75 80  
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu  
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<210> 5059  
 <211> 480  
 <212> DNA  
 <213> Homo sapiens

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<210> 5060  
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<400> 5060  
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Leu	Pro	His	Thr	Leu	Pro	Ala	Phe	Leu	Pro	His	Cys	Leu	Glu	Asp	Leu		
		35					40					45					
Leu	Arg	Ala	Trp	Val	Leu	Val	Ile	Gly	Ser	Ala	Pro	Arg	Ala	Gly	Cys		
	50					55					60						
Arg	Leu	Ser	Leu	Glu	Lys	Asp	Ser	Gln	Leu	Val	Ser	Leu	Cys	Ile	His		
65					70					75				80			
Ala	Leu	Cys	Pro	Glu	Arg	Pro	Ser	Gln	Ser	Ala	Arg	Ala	Val	Ile	Thr		
			85						90					95			
Arg	Tyr	His	Ala	Leu	Gly	Gly	Leu	Thr	His	Arg	Glu	Cys	Leu	Ser	Val		
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Leu	Glu																

&lt;210&gt; 5061

&lt;211&gt; 2462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5061

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 780  
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2462

&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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          20           25           30
Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
          35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
          50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
          85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
          100          105          110
Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
          115          120          125
Leu Ser Trp His Ala Ser Arg Leu
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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120
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180
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240
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300
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420
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561

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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5064

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      20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
      35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
      50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
      85           90           95
Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
      100           105           110

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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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120
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300
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360
acgcccgggc
370

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&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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Ile Glu Asp Ala Arg Glu Arg Met Arg Thr Leu Arg Lys Leu Ile Arg
 1           5           10           15
Asp Leu Pro Gly His Tyr Tyr Glu Thr Leu Lys Phe Leu Val Gly His
      20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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				85						90					95
Lys	Gly	Glu	Arg	Ile	Leu	Pro	Pro	Val	Val	Gln	Ser	Ser	Pro	Arg	Val
			100					105					110		
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		115					120								

&lt;210&gt; 5067

&lt;211&gt; 2023

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5067

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120  
cgaatacgaa gcctgttgga acgtcaagcc agagagattg aagcttttga ctctgaaagc  
180  
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<210> 5068

<211> 179

<212> PRT

<213> Homo sapiens

<400> 5068

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			20					25					30		
Ala	Leu	Gln	Asn	Glu	Arg	Thr	Glu	Arg	Ile	Arg	Ser	Leu	Leu	Glu	Arg
		35					40					45			
Gln	Ala	Arg	Glu	Ile	Glu	Ala	Phe	Asp	Ser	Glu	Ser	Met	Arg	Leu	Gly
	50					55					60				
Phe	Ser	Asn	Met	Val	Leu	Ser	Asn	Leu	Ser	Pro	Glu	Ala	Phe	Ser	His
65				70						75				80	
Ser	Tyr	Pro	Gly	Ala	Ser	Gly	Trp	Ser	His	Asn	Pro	Thr	Gly	Gly	Pro
			85					90					95		
Gly	Pro	His	Trp	Gly	His	Pro	Met	Gly	Gly	Pro	Pro	Gln	Ala	Trp	Gly
			100					105					110		
His	Pro	Met	Gln	Gly	Gly	Pro	Gln	Pro	Trp	Gly	His	Pro	Ser	Gly	Pro
		115					120						125		
Met	Gln	Gly	Val	Pro	Arg	Gly	Ser	Ser	Met	Gly	Val	Arg	Asn	Ser	Pro
	130					135					140				
Gln	Ala	Leu	Arg	Arg	Thr	Ala	Ser	Gly	Gly	Arg	Thr	Glu	Gln	Gly	Met
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 <210> 5069  
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 <212> DNA  
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<210> 5070

<211> 255

<212> PRT

<213> Homo sapiens

<400> 5070

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Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
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<211> 76

<212> PRT

<213> Homo sapiens

<400> 5072

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Ser	Leu	Gln	Ser	Ser	Trp	Asp	Tyr	Arg	His	Ala	Gln	Pro	Cys	Pro	Ala
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<211> 1712  
<212> DNA  
<213> Homo sapiens

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<211> 240

<212> PRT

<213> Homo sapiens

<400> 5074

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			20					25					30		
Met	Asp	Lys	Glu	Thr	Phe	Glu	Phe	Lys	Phe	Gly	Lys	Glu	Leu	Thr	Phe
		35					40					45			
Thr	Thr	Val	Leu	Ser	Asp	Gln	Gln	Val	Val	Glu	Leu	Ile	Pro	Gly	Gly
		50				55					60				
Ala	Gly	Ile	Val	Val	Gly	Tyr	Gly	Asp	Arg	Ser	Arg	Phe	Ile	Gln	Leu
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Gln	Ala	Gly	Leu	Leu	Lys	Val	Val	Pro	Gln	Ala	Val	Leu	Asp	Leu	Leu
			100					105					110		
Thr	Trp	Gln	Glu	Leu	Glu	Lys	Lys	Val	Cys	Gly	Asp	Pro	Glu	Val	Thr
		115				120						125			
Val	Asp	Ala	Leu	Arg	Lys	Leu	Thr	Arg	Phe	Glu	Asp	Phe	Glu	Pro	Ser
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Asp	Ser	Arg	Val	Gln	Tyr	Phe	Trp	Glu	Ala	Leu	Asn	Asn	Phe	Thr	Asn
145					150					155				160	
Glu	Asp	Arg	Ser	Arg	Phe	Leu	Arg	Phe	Val	Thr	Gly	Arg	Ser	Arg	Leu
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Pro	Ala	Arg	Xaa	Ser	Thr	Ser	Thr	Gln	Thr	Ser	Trp	Ala	Thr	Arg	Pro
			180					185					190		
Xaa	Asp	Ala	Leu	Pro	Glu	Ser	Ser	Thr	Cys	Ser	Ser	Thr	Leu	Phe	Leu
		195					200					205			
Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala
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<210> 5075

<211> 444

<212> DNA

<213> Homo sapiens

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<210> 5076

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5076

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			20					25					30		
Cys	Trp	Asp	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu
		35					40					45			
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	50					55				60					
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<211> 2352

<212> DNA

<213> Homo sapiens

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<210> 5078

<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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			20					25					30		
Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
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65					70					75					80
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
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Val	Lys	Asp	Leu	Gln	Arg	Cys	Thr	Val	Ser	Leu	Thr	Arg	Tyr	Arg	Val
225					230					235					240
Met	Ile	Lys	Glu	Glu	Val	Asp	Ser	Ser	Val	Lys	Lys	Ile	Lys	Ala	Ala
				245					250					255	
Phe	Ala	Glu	Leu	His	Asn	Cys	Ile	Ile	Asp	Lys	Glu	Val	Ser	Leu	Met

Ala	Glu	Met	Asp	Lys	Val	Lys	Glu	Glu	Ala	Met	Glu	Ile	Leu	Thr	Ala	
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Arg	Gln	Lys	Lys	Ala	Glu	Glu	Leu	Lys	Arg	Leu	Thr	Asp	Leu	Ala	Ser	
	290					295					300					
Gln	Met	Ala	Glu	Met	Gln	Leu	Ala	Glu	Leu	Arg	Ala	Glu	Ile	Lys	His	
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Phe	Val	Ser	Glu	Arg	Lys	Tyr	Asp	Glu	Glu	Leu	Gly	Lys	Ala	Ala	Arg	
				325					330					335		
Phe	Ser	Cys	Asp	Ile	Glu	Gln	Leu	Lys	Ala	Gln	Ile	Met	Leu	Cys	Gly	
			340					345					350			
Glu	Ile	Thr	His	Pro	Lys	Asn	Asn	Tyr	Ser	Ser	Arg	Thr	Pro	Cys	Ser	
		355					360					365				
Ser	Leu	Leu	Pro	Leu	Leu	Asn	Ala	His	Ala	Ala	Thr	Ser	Gly	Lys	Gln	
	370					375					380					
Ser	Asn	Phe	Ser	Arg	Lys	Ser	Ser	Thr	His	Asn	Lys	Pro	Ser	Glu	Gly	
385					390					395					400	
Lys	Ala	Ala	Asn	Pro	Lys	Met	Val	Ser	Ser	Leu	Pro	Ser	Thr	Ala	Asp	
				405					410					415		
Pro	Ser	His	Gln	Thr	Met	Pro	Ala	Asn	Lys	Gln	Asn	Gly	Ser	Ser	Asn	
			420					425					430			
Gln	Arg	Arg	Arg	Phe	Asn	Pro	Gln	Tyr	His	Asn	Asn	Arg	Leu	Asn	Gly	
		435					440					445				
Pro	Ala	Lys	Ser	Gln	Gly	Ser	Gly	Asn	Glu	Ala	Glu	Pro	Leu	Gly	Lys	
	450					455					460					
Gly	Asn	Ser	Arg	His	Glu	His	Arg	Arg	Gln	Pro	His	Asn	Gly	Phe	Arg	
465					470					475					480	
Pro	Lys	Asn	Lys	Gly	Gly	Ala	Lys	Asn	Gln	Glu	Ala	Ser	Leu	Gly	Met	
				485					490					495		
Lys	Thr	Pro	Glu	Ala	Pro	Ala	His	Ser	Glu	Lys	Pro	Arg	Arg	Arg	Gln	
			500					505					510			
His	Ala	Ala	Asp	Thr	Ser	Glu	Ala	Arg	Pro	Phe	Arg	Gly	Ser	Val	Gly	
		515					520					525				
Arg	Val	Ser	Gln	Cys	Asn	Leu	Cys	Pro	Thr	Arg	Ile	Glu	Val	Ser	Thr	
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<210> 5079

<211> 1338

&lt;212&gt; DNA

<213> Homo sapiens

<400> 5079

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120

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240

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 1338

&lt;210&gt; 5080

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

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Arg	Arg	Ala	Arg	Leu	Pro	Gln	Tyr	Lys	Arg	Pro	Pro	Gly	Arg	Val	Gly
		20						25					30		
Gly	Gly	Asp	Ser	Gly	Arg	Arg	Asn	Met	Ala	Val	Ala	Asp	Leu	Ala	Leu
		35					40					45			
Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
	50					55					60				
Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
65					70					75				80	
Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

				85					90					95					
Tyr	Asp	Lys	Val	Ser	Gly	Asp	Met	Gln	Lys	Gln	Gly	Cys	Asp	Cys	Glu				
			100					105					110						
Cys	Leu	Gly	Gly	Gly	Arg	Ile	Ser	His	Gln	Ser	Gln	Asp	Lys	Lys	Ile				
		115					120					125							
His	Val	Tyr	Gly	Tyr	Ser	Met	Val	Ser	Arg	Ser	Pro	Val	Pro	Pro	Cys				
	130					135					140								
Arg	Arg	Pro	Gln	Tyr	Gln	Leu	Arg	Gly	Pro	Pro	Glu	Pro	Ala	Ala	Leu				
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Thr	Arg	Gly	Pro	Ser															
				165															

&lt;210&gt; 5081

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5081

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540
atcagcacac gtggcaagct g
561

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&lt;210&gt; 5082

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5082

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Ala	Ala	Gln	Ala	Trp	His	Cys	Pro	Pro	Gly	Gln	Gly	His	Ser	Val	Trp				
		20					25					30							
Asp	Ala	Val	Arg	Met	Pro	Leu	Gly	Ala	Gly	Thr	Pro	Val	Asn	Val	Gln				
	35					40					45								
Arg	Arg	Glu	Asp	Ser	Ala	Thr	Glu	Gly	Ser	His	Arg	Leu	Ile	Leu	Ala				
	50				55						60								
Ala	Asn	Arg	Asp	Glu	Phe	Tyr	Ser	Arg	Pro	Ser	Lys	Leu	Ala	Asp	Phe				

65		70		75		80									
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
			85					90					95		
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100					105					110		

&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

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1260

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 1856

&lt;210&gt; 5084

&lt;211&gt; 396

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5084

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Arg	Ala	Ser	Ala	Pro	Arg	Pro	Trp	Gln	Ser	Gln	Thr	Asp	Ser	Asp	Ser
			20					25					30		
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35					40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50					55					60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
65					70					75				80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
				85					90					95	
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
		100						105					110		
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
		115					120						125		
Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
	130					135					140				
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
145					150					155				160	
Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
				165					170					175	
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
		180						185					190		
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
		195					200					205			
His	Glu	Tyr	Pro	Leu	Ser	Trp	Met	Lys	Glu	Lys	Ile	Phe	Ser	Glu	Val

210	215	220
Thr Pro Lys Cys Glu Asp Cys Gln Ser Leu Val Lys Pro Asp Ile Val		
225	230	235
Phe Phe Gly Glu Ser Leu Pro Ala Arg Phe Phe Ser Cys Met Gln Ser		240
	245	250
Asp Phe Leu Lys Val Asp Leu Leu Leu Val Met Gly Thr Ser Leu Gln		255
	260	265
Val Gln Pro Phe Ala Ser Leu Ile Ser Lys Ala Pro Leu Ser Thr Pro		270
	275	280
Arg Leu Leu Ile Asn Lys Glu Lys Ala Gly Gln Ser Asp Pro Phe Leu		285
	290	295
Gly Met Ile Met Gly Leu Gly Gly Gly Met Asp Phe Asp Ser Lys Lys		300
305	310	315
Ala Tyr Arg Asp Val Ala Trp Leu Gly Glu Cys Asp Gln Gly Cys Leu		320
	325	330
Ala Leu Ala Glu Leu Leu Gly Trp Lys Lys Glu Leu Glu Asp Leu Val		335
	340	345
Arg Arg Glu His Ala Ser Ile Asp Ala Gln Ser Gly Ala Gly Val Pro		350
	355	360
Asn Pro Ser Thr Ser Ala Ser Pro Lys Lys Ser Pro Pro Pro Ala Lys		365
	370	375
Asp Glu Ala Arg Thr Thr Glu Arg Glu Lys Pro Gln		380
385	390	395

&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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 2964

<210> 5086

<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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			20					25				30			
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35				40					45				
Arg	Leu	Gly	Ser	Ile	Ala	Glu	Ile	Asp	Leu	Gly	Val	Pro	Pro	Pro	Val
	50					55				60					
Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
65				70						75				80	
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&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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<212> PRT

<213> Homo sapiens

<400> 5088

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Gln	Gly	Arg	Ser	Cys	Pro	Gly	Thr	Pro	Asp	Ile	Ala	Asp	Val	Ala	Glu
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&lt;211&gt; 793

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 5090

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<210> 5091

<211> 3150

<212> DNA

<213> Homo sapiens

<400> 5091

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<400> 5092

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Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
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<212> DNA

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&lt;210&gt; 5094

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

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Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val				
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Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro				
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Thr Val Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln				
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Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu				
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Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala				
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Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser				
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&lt;210&gt; 5095

&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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<211> 153

<212> PRT

<213> Homo sapiens

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<211> 114

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<213> Homo sapiens

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<210> 5100  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5100

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Cys	Asp	Glu	Ala	Gly	Thr	Pro	Val	Gly	Leu	Gly	Leu	Leu	Leu	Glu	Leu
			20					25					30		
Gly	Pro	Ser	Ala	Arg	Pro	Pro	Pro	Thr	Pro	Thr	Trp	Thr	Gly	Pro	Gly
		35					40					45			
Leu	Gly	Thr	Leu	Ser	Cys	Val	Lys	Glu	Asn	Lys	Gly	Lys	Glu	Thr	Ser
	50					55					60				
Leu	Cys	Ala	Pro	Ser	Leu	Pro	Asn	Lys	His	Glu	Ser	Asp	Val	Leu	Gln
65					70					75					80
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
				85				90					95		
Lys	Lys	Lys	Lys	Lys	Lys	Lys									
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

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			20					25					30		
Pro	Thr	Ala	Val	Thr	Ala	Pro	His	Ser	Ser	Ser	Trp	Asp	Thr	Tyr	Tyr
			35				40					45			
Gln	Pro	Arg	Ala	Leu	Glu	Lys	His	Ala	Asp	Ser	Ile	Leu	Ala	Leu	Ala
			50				55				60				
Ser	Val	Phe	Trp	Ser	Ile	Ser	Tyr	Tyr	Ser	Ser	Pro	Phe	Ala	Phe	Phe
65					70				75					80	
Tyr	Leu	Tyr	Arg	Lys	Gly	Tyr	Leu	Ser	Leu	Ser	Lys	Val	Val	Pro	Phe
				85					90					95	
Ser	His	Tyr	Ala	Gly	Thr	Leu	Leu	Leu	Leu	Leu	Ala	Gly	Val	Ala	Cys
			100					105					110		
Leu	Arg	Gly	Ile	Gly	Arg	Trp	Thr	Asn	Pro	Gln	Tyr	Arg	Gln	Phe	Ile
			115				120					125			
Thr	Ile	Leu	Glu	Ala	Thr	His	Arg	Asn	Gln	Ser	Ser	Glu	Asn	Lys	Arg
			130				135					140			
Gln	Leu	Ala	Asn	Tyr	Asn	Phe	Asp	Phe	Arg	Ser	Trp	Pro	Val	Asp	Phe
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<210> 5103
<211> 1982
<212> DNA
<213> Homo sapiens
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180
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240
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360

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720  
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780  
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1980



gg  
1982

<210> 5104  
<211> 167  
<212> PRT  
<213> Homo sapiens

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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp  
35 40 45  
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
50 55 60  
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro  
65 70 75 80  
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
85 90 95  
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe  
100 105 110  
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys  
115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
130 135 140  
Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu  
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Tyr Glu Arg Ala Met Cys Phe  
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<210> 5105  
<211> 1359  
<212> DNA  
<213> Homo sapiens

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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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			20					25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
		35					40					45			
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
		50				55					60				
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65				70					75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85					90						95	
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu
			100					105					110		
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
		115					120					125			
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile

130	135	140																	
Leu	Val	Asp	Ala	Asp	Gly	His	Val	Thr	Phe	Thr	Glu	Arg	Ser	Met	Met				
145					150					155					160				
Asp	Lys	Asp	Leu	Ser	His	Trp	Glu	Thr	Arg	Thr	Tyr	Glu	Phe	Thr	Leu				
				165					170						175				
Gln	Ser																		

&lt;210&gt; 5107

&lt;211&gt; 1207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5107

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<210> 5108  
<211> 83  
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<213> Homo sapiens

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Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe  
35 40 45  
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
50 55 60  
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val  
65 70 75 80  
Ser Pro Cys

<210> 5109  
<211> 651  
<212> DNA  
<213> Homo sapiens

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<210> 5110  
<211> 206  
<212> PRT

<213> Homo sapiens

<400> 5110

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Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
35          40          45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
50          55          60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
65          70          75          80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
85          90          95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
100         105         110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
115         120         125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
130         135         140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
145         150         155         160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
165         170         175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
180         185         190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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<210> 5111

<211> 2247

<212> DNA

<213> Homo sapiens

<400> 5111

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540

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 <211> 581  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ser Gly Arg Pro Ser Leu Gly Ala Pro Gln Arg Leu Arg Ala Tyr Gly  
 50 55 60  
 Gly Arg Lys Gly Leu Glu Ala Ala Pro Trp Val Thr Thr Ala Arg Pro  
 65 70 75 80  
 Thr Phe Pro His Val Ala Ala Lys Thr Gly Ser Gly Ala Ser Ile Gly  
 85 90 95  
 Cys Thr Pro Thr Ser Thr Gln Ala Lys Met Val Ser Lys Arg Ile Ala  
 100 105 110  
 Gln Glu Thr Phe Asp Ala Ala Val Arg Glu Asn Ile Glu Glu Phe Ala  
 115 120 125  
 Met Gly Pro Glu Glu Ala Val Lys Glu Ala Val Glu Gln Phe Glu Ser  
 130 135 140  
 Gln Gly Val Asp Leu Ser Asn Ile Val Lys Thr Ala Pro Lys Val Ser  
 145 150 155 160  
 Ala Asp Gly Ser Gln Glu Pro Thr His Asp Ile Leu Gln Met Leu Ser  
 165 170 175  
 Asp Leu Gln Glu Ser Val Ala Ser Ser Arg Pro Gln Glu Val Ser Ala  
 180 185 190  
 Tyr Leu Thr Arg Phe Cys Asp Gln Cys Lys Gln Asp Lys Ala Cys Arg  
 195 200 205  
 Phe Leu Ala Ala Gln Lys Gly Ala Tyr Pro Ile Ile Phe Thr Ala Arg  
 210 215 220  
 Lys Leu Ala Thr Ala Gly Asp Gln Gly Leu Leu Gln Ser Leu Asn  
 225 230 235 240  
 Ala Leu Ser Val Leu Thr Asp Gly Gln Pro Asp Leu Leu Asp Ala Gln  
 245 250 255  
 Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala  
 260 265 270  
 Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys  
 275 280 285  
 His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu  
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 Leu Thr Gly Ala Ile Thr His His Gly His His Thr Asp Val Val Arg  
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[illegible]

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<211> 472
<212> DNA
<213> Homo sapiens
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120
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180
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240
gattggagca agagattttt ttttccaagt aaagaacaat ttatgttcct aaatactttt
300
tttccttgac atgatgaagt tgagcaaggt ggctatagaa ctttttttct taattttatt
360
gcccaagtaa tgttctttac aaagtaggga aatacagata cataaaaaga agactgccaa
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472
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<210> 5114  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5114  
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 Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser  
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 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
 65 70 75 80  
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn  
 85 90 95  
 Thr Phe Phe Pro  
 100

<210> 5115  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

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 120  
 tccaaagcct gcctggggat ttgtgcccga gccagccca ggagggctag agaaagcaaa  
 180  
 ggtgtctacc agccgccgcc atcccagaag gaaagcctct tcccatgagt gcctgtgggt  
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 gggcggtgag ctcaacaccc acaaaggga gaaggcctgg gggcagtgag gtgatggtga  
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 gggcatggga agcagatgct gctgaggggtg ggtggaggga gaaatggaga ccagcaccc  
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 420  
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 480  
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 900  
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<210> 5116

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5116

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Arg	Gly	Ser	Gln	Val	Thr	Ala	Gly	Glu	Ala	Asp	Gly	Arg	Ala	Pro	Gly
			20					25					30		
Ser	Pro	Gly	Pro	Gln	Ala	Leu	Lys	Gly	Gly	Ala	Arg	Gly	Ser	Gly	His
		35					40					45			
Val	Leu	Thr	Ser	Ser	Ser	Gly	Ser	Ala	Cys	Ala	Gly	Ser	Pro	Leu	Cys
	50					55					60				
Pro	Ala	Met	Ser	His	Leu	Gly	Val	Ser	His	Val	Arg	Glu	Gln	Leu	Leu
65					70					75				80	
Leu	Ser	Ile	Met	Gln	Phe	Leu	Ser	Trp	Val	Ile	Ala	Val	His	Gly	Glu
				85					90					95	
Gln	Val	His	Ala	Gln	Pro	Val	His	Pro	Leu	Phe	Leu	Leu	Tyr	Ile	His
			100					105					110		
Tyr	His	Ser	His	His	His	Pro	Asp	Gln	Gly	Asp	Glu	Glu	Glu	Gly	Pro
		115					120					125			
Gln	His	Ile	Ala	His	His	Gly	Val	Ala	Val	Gly	Leu	Gly	Gly	Ile	Gly
	130					135					140				
His	Ser	Gly	Val	Thr	His	Asp	Ile	Ser	Ser	Arg	Arg	Ala	Gly	Trp	Ser
145					150					155				160	
Ala	Trp	Ala	Val	Ala	Leu	Arg	Glu	Gly	Ala	Ser	Thr	Gly	Leu	Pro	Ser
				165					170					175	
Arg	Met	Leu	Ile	Val	Pro	Gly	Gln	Gly	Gly	Met	Pro	Gly	Trp	Gly	Gly
			180					185					190		
Arg	Gln	Ala	Ala	Ala	Arg	Met	Arg	Ala	Ser	Asn	Ser	Gly	Xaa	Gly	Gly
		195					200					205			
Gly	Ser	His	Gly	Ala	Gly	Xaa	Ala	His	Ala	Gly	Gly	Gly	Gly	Val	Gly
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225															

<210> 5117

<211> 1180

<212> DNA

<213> Homo sapiens

<400> 5117

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 agtgggaaaa gtgcaacagc gaacaccatc cttgggagagg aaatctttga ttctagaatt  
 180  
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 240  
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 300  
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 360  
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 420  
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 720  
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 780  
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 900  
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 960  
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 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

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Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
			20					25				30			
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35				40				45					
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
	50					55				60					
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

65					70					75					80
Ile	Ser	Arg	Cys	Ile	Ile	Ser	Ser	Cys	Pro	Gly	Pro	His	Ala	Ile	Val
				85					90					95	
Leu	Val	Leu	Leu	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	Gln	Lys	Thr	Val
			100					105					110		
Ala	Leu	Ile	Lys	Ala	Val	Phe	Gly	Lys	Ser	Ala	Met	Lys	His	Met	Val
		115					120					125			
Ile	Leu	Phe	Thr	Arg	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Ser	Phe	His	Asp
	130					135					140				
Phe	Ile	Ala	Asp	Ala	Asp	Val	Gly	Leu	Lys	Ser	Ile	Val	Lys	Glu	Cys
145					150					155					160
Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser	Lys	Ala
			165					170						175	
Glu	Lys	Glu	Ser	Gln	Val	Gln	Glu	Leu	Val	Glu	Leu	Ile	Glu	Lys	Met
			180					185					190		
Val	Gln	Cys	Asn	Glu	Gly	Ala	Tyr	Phe	Ser	Asp	Asp	Ile	Tyr	Lys	Asp
	195						200					205			
Thr	Glu	Glu	Arg	Leu	Lys	Gln	Arg	Glu	Glu	Val	Leu	Arg	Lys	Ile	Tyr
	210					215					220				
Thr	Asp	Gln	Leu	Asn	Glu	Glu	Ile	Lys	Leu	Val	Glu	Glu	Asp	Lys	His
225					230					235					240
Lys	Ser	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Ile	Lys	Leu	Leu	Lys	Leu	Lys
			245					250						255	
Tyr	Asp	Glu	Lys	Ile	Lys	Asn	Ile	Arg	Glu	Glu	Ala	Glu	Arg	Asn	Ile
	260							265				270			
Phe	Lys	Asp	Val	Phe	Asn	Arg	Ile	Trp	Lys	Met	Leu	Ser	Glu	Ile	Trp
	275						280					285			
His	Arg	Phe	Leu	Ser	Lys	Cys	Lys	Phe	Tyr	Ser	Ser				
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&lt;210&gt; 5119

&lt;211&gt; 1450

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5119

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180

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240

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300

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360

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420

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480

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540

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 1450

&lt;210&gt; 5120

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5120

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Phe	Ser	Asn	Lys	Pro	His	Leu	Glu	Lys	Ile	Leu	Phe	Xaa	Ile	Ile	Phe
		20						25					30		
Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
		35					40					45			
Ser	Leu	Lys	Asp	Pro	Lys	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ser
	50					55					60				
Asn	Leu	Ser	Leu	Val	Asp	Leu	Cys	Leu	Thr	Ser	Ser	Cys	Val	Pro	Gln
65				70					75					80	
Met	Leu	Ile	Asn	Phe	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ile	Gly
			85					90						95	
Cys	Ala	Ile	Gln	Leu	Tyr	Val	Phe	Leu	Trp	Leu	Gly	Ala	Thr	Glu	Tyr
		100						105					110		
Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

115 120 125  
 Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu  
 130 135 140  
 Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser  
 145 150 155 160  
 Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp  
 165 170 175  
 Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr  
 180 185 190  
 Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val  
 195 200 205  
 Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala  
 210 215 220  
 Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr  
 225 230 235 240  
 Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr  
 245 250 255  
 Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys  
 260 265 270  
 Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu  
 275 280 285  
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu  
 290 295 300  
 Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn  
 305 310

&lt;210&gt; 5121

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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 120  
 atagtggagc tgccactct agaggagctg aaagtagatg aggtgaaaat tagttctgct  
 180  
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 240  
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 300  
 aacaagtgtg ctttggactt ctttaggcag ataaaacgtc actgtgcaga gccttttaca  
 360  
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 420  
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 480  
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 660

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 720  
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 780  
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 840  
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 944

<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

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Glu	Val	Lys	Ile	Ser	Ser	Ala	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr
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Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
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Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
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Lys	Cys	Ala	Leu	Asp	Phe	Phe	Arg	Gln	Ile	Lys	Arg	His	Cys	Ala	Glu
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Pro	Phe	Thr	Glu	Tyr	Trp	Thr	Cys	Ile	Asp	Tyr	Thr	Gly	Gln	Gln	Leu
			85					90					95		
Phe	Arg	His	Cys	Arg	Lys	Gln	Gln	Ala	Lys	Phe	Asp	Glu	Cys	Val	Leu
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Asp	Lys	Leu	Gly	Trp	Val	Arg	Pro	Asp	Leu	Gly	Glu	Leu	Ser	Lys	Val
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Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
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Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
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<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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&lt;210&gt; 5124

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5124

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Thr	Pro	Lys	Pro	His	Leu	Ala	Ala	His	Ser	Cys	Ser	Leu	Leu	Gln	Lys
			20					25					30		
Gln	Ala	Cys	Met	Leu	Ile	Arg	Asn	Leu	Val	Ala	His	Gly	Gln	Ala	Phe
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Ser	Lys	Pro	Ile	Leu	Asp	Leu	Gly	Ala	Glu	Ala	Leu	Ile	Met	Gln	Ala
	50					55					60				
Arg	Ser	Ala	His	Arg	Asp	Cys	Glu	Asp	Val	Ala	Lys	Ala	Ala	Leu	Arg
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Asp	Leu	Gly	Cys	His	Val	Glu	Leu	Arg	Glu	Leu	Trp	Thr	Gly	Gln	Arg
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Gly	Asn	Leu	Ala	Pro											
				100											

&lt;210&gt; 5125

&lt;211&gt; 6244



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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&lt;210&gt; 5126

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 <212> PRT  
 <213> Homo sapiens

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 Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala  
 35 40 45  
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln  
 50 55 60  
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu  
 65 70 75 80  
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly  
 85 90 95  
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 Asp Val Leu Val Val  
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<210> 5127  
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 <213> Homo sapiens

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<210> 5128  
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 <212> PRT  
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<210> 5130  
<211> 111  
<212> PRT  
<213> Homo sapiens

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Ser Arg Gln Leu His Phe Arg Leu Glu Glu Arg Gln Gly Val Gly  
35 40 45  
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
50 55 60  
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro  
65 70 75 80  
Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly



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				85					90					95
Val	Thr	Asn	Pro	Ser	Gln	Arg	Ala	Glu	Val	Glu	Arg	Val	Lys	Asp
			100					105					110	
Leu	Leu	Lys	Ser	Thr	Cys	Val	Leu	Glu	Ala	Phe	Gly	Asn	Ala	Arg
		115					120					125		
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	130					135					140			
Phe	Asp	Phe	Lys	Gly	Asp	Pro	Ile	Gly	Gly	His	Ile	His	Ser	Tyr
145					150					155				160
Leu	Glu	Lys	Ser	Arg	Val	Leu	Lys	Gln	His	Val	Gly	Glu	Arg	Asn
				165				170					175	
His	Ala	Phe	Tyr	Gln	Leu	Leu	Arg	Gly	Ser	Glu	Asp	Lys	Gln	Leu
			180					185					190	
Glu	Leu	His	Leu	Glu	Arg	Asn	Pro	Ala	Val	Tyr	Asn	Phe	Thr	His
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Pro	Glu	Glu	Val	Glu	Ser	Val	His	Arg	Ile	Leu	Ala	Ala	Ile	Leu
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&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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360

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420

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581

&lt;210&gt; 5134



<211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 5134

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Ser	Arg	Gly	Ser	Pro	Tyr	Arg	Glu	Ser	Pro	Leu	Gly	His	Phe	Glu	Ser
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Tyr	Gly	Gly	Met	Pro	Phe	Phe	Gln	Ala	Gln	Lys	Met	Phe	Val	Asp	Val
65					70					75				80	
Pro	Glu	Asn	Thr	Val	Ile	Leu	Asp	Glu	Met	Thr	Leu	Arg	His	Met	Val
				85					90					95	
Gln	Asp	Cys	Thr	Ala	Val	Lys	Thr	Gln	Leu	Leu	Lys	Leu	Lys	Arg	Leu
			100					105					110		
Leu	His	Gln	His	Asp	Gly	Ser	Gly	Ser	Leu	His	Asp	Ile	Gln	Leu	Ser
			115				120					125			
Leu	Pro	Ser	Ser	Pro	Glu	Pro	Glu	Asp	Gly	Asp	Lys	Val	Tyr	Lys	Asn
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<210> 5135  
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 <212> DNA  
 <213> Homo sapiens

<400> 5135

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<210> 5136

<211> 341

<212> PRT

<213> Homo sapiens

<400> 5136

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			20					25					30		
Gly	Leu	Leu	Ser	Gly	Gly	Leu	Pro	Arg	Lys	Cys	Ser	Val	Phe	His	Leu
		35					40					45			
Phe	Val	Ala	Cys	Leu	Ser	Leu	Gly	Phe	Phe	Ser	Leu	Leu	Trp	Leu	Gln
	50					55					60				
Leu	Ser	Cys	Ser	Gly	Asp	Val	Ala	Arg	Ala	Val	Arg	Gly	Gln	Gly	Gln
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<212> DNA
<213> Homo sapiens
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420
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 3090

&lt;210&gt; 5138

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5138

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 20 25 30  
 Ala Pro Leu Asp Trp Ala Leu Pro Leu Ser Glu Val Pro Ser Asp Trp  
 35 40 45  
 Glu Val Asp Asp Leu Leu Cys Ser Leu Leu Ser Pro Pro Ala Ser Leu  
 50 55 60  
 Asn Ile Leu Ser Ser Ser Asn Pro Cys Leu Val His His Asp His Thr  
 65 70 75 80  
 Tyr Ser Leu Pro Arg Glu Thr Val Ser Met Asp Leu Glu Ser Glu Ser

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Ala	Glu	Gln	Glu	Ile	Ala	Arg	Leu	Val	Leu	Thr	Asp	Glu	Glu	Lys	Ser	
115								120				125				
Leu	Leu	Glu	Lys	Glu	Gly	Leu	Ile	Leu	Pro	Glu	Thr	Leu	Pro	Leu	Thr	
130								135				140				
Lys	Thr	Glu	Glu	Gln	Ile	Leu	Lys	Arg	Val	Arg	Arg	Lys	Ile	Arg	Asn	
145								150				155				
Lys	Arg	Ser	Ala	Gln	Glu	Ser	Arg	Arg	Lys	Lys	Lys	Val	Tyr	Val	Gly	
165								170				175				
Gly	Leu	Glu	Ser	Arg	Val	Leu	Lys	Tyr	Thr	Ala	Gln	Asn	Met	Glu	Leu	
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Gln	Asn	Lys	Val	Gln	Leu	Leu	Glu	Glu	Gln	Asn	Leu	Ser	Leu	Leu	Asp	
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Gln	Leu	Arg	Lys	Leu	Gln	Ala	Met	Val	Ile	Glu	Ile	Ser	Asn	Lys	Thr	
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Ser	Ser	Ser	Ser	Thr	Cys	Ile	Leu	Val	Leu	Leu	Val	Ser	Phe	Cys	Leu	
225								230				235				
Leu	Leu	Val	Pro	Ala	Met	Tyr	Ser	Ser	Asp	Thr	Arg	Gly	Ser	Leu	Pro	
245								250				255				
Ala	Glu	His	Gly	Val	Leu	Ser	Arg	Gln	Leu	Arg	Ala	Leu	Pro	Ser	Glu	
260								265				270				
Asp	Pro	Tyr	Gln	Leu	Glu	Leu	Pro	Ala	Leu	Gln	Ser	Glu	Val	Pro	Lys	
275								280				285				
Asp	Ser	Thr	His	Gln	Trp	Leu	Asp	Gly	Ser	Asp	Cys	Val	Leu	Gln	Ala	
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Pro	Gly	Asn	Thr	Ser	Cys	Leu	Leu	His	Tyr	Met	Pro	Gln	Ala	Pro	Ser	
305								310				315				
Ala	Glu	Pro	Pro	Leu	Glu	Trp	Pro	Phe	Pro	Asp	Leu	Phe	Ser	Glu	Pro	
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Leu	Cys	Arg	Gly	Pro	Ile	Leu	Pro	Leu	Gln	Ala	Asn	Leu	Thr	Arg	Lys	
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Gly	Gly	Trp	Leu	Pro	Thr	Gly	Ser	Pro	Ser	Val	Ile	Leu	Gln	Asp	Arg	
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<210> 5139
<211> 1968
<212> DNA
<213> Homo sapiens
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300
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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Asn	His	Thr	Gly	Glu	Leu	Leu	Ala	Thr	Gly	Asp	Lys	Gly	Gly	Arg	Val
			35				40					45			
Val	Ile	Phe	Gln	Arg	Glu	Gln	Glu	Ser	Lys	Asn	Gln	Val	His	Arg	Arg
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			85						90					95	
Trp	Leu	Pro	Gln	Asn	Ala	Ala	Tyr	Phe	Leu	Leu	Ser	Thr	Asn	Asp	
			100					105					110		
Lys	Thr	Val	Lys	Leu	Trp	Lys	Val	Ser	Glu	Arg	Asp	Lys	Arg	Pro	Glu
			115				120					125			
Gly	Tyr	Asn	Leu	Lys	Asp	Glu	Gly	Arg	Leu	Arg	Asp	Pro	Ala	Thr	
			130			135				140					
Ile	Thr	Thr	Leu	Arg	Val	Pro	Val	Leu	Arg	Pro	Met	Asp	Leu	Met	Val
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Glu	Ala	Thr	Pro	Arg	Arg	Val	Phe	Ala	Asn	Ala	His	Thr	Tyr	His	Ile
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Asn	Ser	Ile	Ser	Val	Asn	Ser	Asp	Tyr	Glu	Thr	Tyr	Met	Ser	Ala	Asp
			180					185					190		
Asp	Leu	Arg	Ile	Asn	Leu	Trp	Asn	Phe	Glu	Ile	Thr	Asn	Gln	Ser	Phe
			195				200						205		
Asn	Ile	Val	Asp	Ile	Lys	Pro	Ala	Asn	Met	Glu	Glu	Leu	Thr	Glu	Val
			210			215					220				
Ile	Thr	Ala	Ala	Glu	Phe	His	Pro	His	His	Cys	Asn	Thr	Phe	Val	Tyr
225					230					235					240
Ser	Ser	Ser	Lys	Gly	Thr	Ile	Arg	Leu	Cys	Asp	Met	Arg	Ala	Ser	Ala
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Leu	Cys	Asp	Arg	His	Thr	Lys	Phe	Phe	Glu	Glu	Pro	Glu	Asp	Pro	Ser
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Asn	Arg	Ser	Phe	Phe	Ser	Glu	Ile	Ser	Ser	Ile	Ser	Asp	Val	Lys	
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Phe	Ser	His	Ser	Gly	Arg	Tyr	Ile	Met	Thr	Arg	Asp	Tyr	Leu	Thr	Val
			290			295					300				
Lys	Val	Trp	Asp	Leu	Asn	Met	Glu	Ser	Arg	Pro	Val	Glu	Thr	His	Gln
305					310					315					320
Val	His	Asp	Tyr	Leu	Arg	Ser	Lys	Leu	Cys	Ser	Leu	Tyr	Glu	Asn	Asp
			325						330					335	
Cys	Ile	Phe	Asp	Lys	Phe	Glu	Cys	Val	Trp	Asn	Gly	Ser	Asp	Ser	Val
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Ile	Met	Thr	Gly	Ser	Tyr	Asn	Asn	Phe	Phe	Arg	Met	Phe	Asp	Arg	Asp



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Thr	Lys	Arg	Asp	Val	Thr	Leu	Glu	Ala	Ser	Arg	Glu	Asn	Ser	Lys	Pro				
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Lys	Asp	Glu	Ile	Ser	Val	Asp	Ser	Leu	Asp	Phe	Ser	Lys	Lys	Ile	Leu				
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His	Thr	Ala	Trp	His	Pro	Val	Asp	Asn	Val	Ile	Ala	Val	Ala	Ala	Thr				
			420					425					430						
Asn	Asn	Leu	Tyr	Ile	Phe	Gln	Asp	Lys	Ile	Asn									
	435						440												

&lt;210&gt; 5141

&lt;211&gt; 928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5141

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&lt;210&gt; 5142

&lt;211&gt; 227

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5142

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          20           25           30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
          35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
          50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
          85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
          100          105          110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
          115          120          125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
          130          135          140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
          145          150          155          160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
          165          170          175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
          180          185          190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
          195          200          205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
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Gln Val Leu
225

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<210> 5143

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 5143

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120
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180
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240
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300
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa
360
gatcagtttg atgaaatcat agtagatata gccacaaaac gtaagcagta tcccagaaag
420

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 540  
 ttgaaatgca gaggggaaac agtagcaaag gagatcagtg aagccatgaa gtccttgcc  
 600  
 gcattaattg aacaaggaga gggattttcc caagttctca ggatgcagcc tgttatccac  
 660  
 ctccagagga ttcaccaaga agtcttttcc agttgtcata ggaaaccaga tgctaaacct  
 720  
 gagaacttta taacacagat agaaaccaca ccaacagaga ctgcttccag gaaaacctct  
 780  
 gacatggtac tgaaaagaaa gcaaaactaaa gactgcccc agagaaaatg gtatccattg  
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 1666

&lt;210&gt; 5144

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

Leu	Pro	Glu	Glu	Ile	Arg	Glu	Pro	Ala	Leu	Arg	Asp	Ala	Gln	Trp	Thr
1				5					10					15	
Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
			20					25					30		
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu



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 960  
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 1860  
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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro	Ala	Thr	Ser	Glu	Lys	Glu	Ser	Ile	Leu	Leu	Phe	Pro	Asp	Leu	Arg
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Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

50                                      55                                      60  
 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys  
 65                                      70                                      75                                      80  
 Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro  
                                     85                                      90                                      95  
 Ser Phe Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr  
                                     100                                      105                                      110  
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr  
                                     115                                      120                                      125  
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly  
                                     130                                      135                                      140  
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala  
 145                                      150                                      155                                      160  
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile  
                                     165                                      170                                      175  
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro  
                                     180                                      185                                      190  
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu  
                                     195                                      200                                      205  
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly  
                                     210                                      215                                      220  
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu  
 225                                      230                                      235                                      240  
 Ser Ile Val Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe  
                                     245                                      250                                      255  
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met  
                                     260                                      265                                      270  
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro  
                                     275                                      280                                      285  
 Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser  
                                     290                                      295                                      300  
 Gly Phe Leu Ile Phe Pro Ser Ala  
 305                                      310

&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

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			20					25					30		
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
		35					40					45			
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
	50					55					60				
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70					75					80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90						95	
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
			100					105						110	
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg



```

      115              120              125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
      130              135              140
Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
145              150              155              160
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165              170              175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180              185              190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195              200              205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210              215              220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225              230              235              240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245              250              255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260              265              270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
      275              280              285
Ile Pro Glu Ile Ile Phe Tyr Thr
      290              295

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&lt;210&gt; 5149

&lt;211&gt; 533

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5149

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gataacatcc ccaaagaaga aaaacatagg cgagaagagg aagctatgaa gcagataacc
180
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240
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360
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420
agaagcacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
480
gctgcactcc tgtaacaaac attattttcc atttcattgt attgtgtttt gca
533

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&lt;210&gt; 5150

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5150

Xaa Arg Met Ala Val Met Ala Met Gly Ile Lys Asp Asp Arg Leu Asn  
 1 5 10 15  
 Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys  
 20 25 30  
 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys  
 35 40 45  
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro  
 50 55 60  
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
 115 120 125  
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn  
 130 135 140  
 Ile Ala Ala Ala Ala Ser Glu Pro His Ser  
 145 150

&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

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 540  
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 660  
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2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

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Thr Met Arg Ser Ser Ile Pro His Trp Arg Ile Ser Arg Met Cys Leu
          20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
          35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
          50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
          85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
          100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
          115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
          195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
          210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
          275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
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Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
305          310          315          320
Arg Ile Leu Val

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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<400> 5154  
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 Ala Cys His Arg Trp Leu Gln Glu Gly Ser Thr Leu Gly Gly Thr Gly  
 35 40 45  
 Glu Leu Ala Phe Gly Ala Asp Thr Leu Leu Thr Leu Pro Phe Leu Leu  
 50 55 60  
 Gln Gly Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val  
 65 70 75 80  
 Val Gln Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Ile  
 85 90 95  
 Ile Tyr Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met  
 100 105 110  
 Ser Tyr Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp  
 115 120 125  
 Leu Val Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Ser Glu Cys  
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<210> 5155  
 <211> 1402  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 5155

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&lt;210&gt; 5156

&lt;211&gt; 118

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5156

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          20           25           30
Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
      35           40           45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
      50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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<210> 5157

<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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240
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<210> 5158

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5158

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			20				25					30			
Gln	Glu	Leu	Ala	Ile	Arg	Tyr	Val	Leu	Cys	Gly	Gln	Ser	Ala	Ser	Gln
		35				40					45				
Thr	His	Arg	Cys	Ser	Pro	Ala	Trp	Leu	Ser	Trp	Asp	Leu	Asn	Leu	Leu
	50				55			60							
Val	Lys	Ser	Phe	Ser	Leu	Ser	Glu	Val	Pro	Ser	Leu	Gln	Met	Leu	Asn
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<210> 5159

<211> 3233

<212> DNA

<213> Homo sapiens

<400> 5159

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 3233

&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

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Thr	His	Asp	Arg	Met	Lys	Asp	Val	Lys	Arg	His	Ile	Thr	Ala	Arg	Leu
			20					25					30		
Asp	Trp	Gly	Asn	Glu	Gln	Leu	Gly	Leu	Asp	Leu	Val	Pro	Arg	Lys	Glu

4341

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    485                                      490                                      495  
 Ser Lys Leu Lys Glu Ile Asp Gly Ser Glu Ile Val Lys Phe Leu Gln  
    500                                      505                                      510  
 Asp Thr Leu Asp Thr Leu Phe Gly Ile Leu Asp Glu Asn Ser Gln Lys  
    515                                      520                                      525  
 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu  
    530                                      535                                      540  
 Gln Asp Ser Lys Phe His His Phe Lys Pro Val Met Asp Thr Tyr Ile  
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 Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val  
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    610                                      615                                      620  
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    660                                      665                                      670  
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    675                                      680                                      685  
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    690                                      695                                      700  
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    725                                      730                                      735  
 Leu Gln Glu Gln Lys Asp Leu Ile Met Cys Ala Arg Ile Leu Ser Asn  
    740                                      745                                      750  
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    755                                      760                                      765  
 Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr  
    770                                      775                                      780  
 Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg  
 785                                      790                                      795                                      800  
 Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser  
    805                                      810                                      815  
 Leu Leu Arg Gln Met Thr Asp Arg His Tyr Gln Gln Leu Leu Asp Ser  
    820                                      825                                      830  
 Phe Asn Thr Lys Glu Glu Leu Arg Val Ser Asp Ile Leu Lys Cys Phe  
    835                                      840                                      845  
 Leu

&lt;210&gt; 5161

&lt;211&gt; 1645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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1645

<210> 5162

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5162

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Lys	Thr	Gly	Leu	Arg	Leu	Arg	Lys	Val	Asp	Gln	Gly	Leu	Phe	Val	Gln
	35					40					45				
Leu	Val	Gln	Ala	Asn	Thr	Pro	Ala	Ser	Leu	Val	Gly	Leu	Arg	Phe	Gly
	50				55					60					
Asp	Gln	Leu	Leu	Gln	Ile	Asp	Gly	Arg	Asp	Cys	Ala	Gly	Trp	Ser	Ser
65				70					75					80	
His	Lys	Ala	His	Gln	Val	Val	Lys	Lys	Ala	Ser	Gly	Asp	Lys	Ile	Val
			85					90						95	
Val	Val	Val	Arg	Asp	Arg	Pro	Phe	Gln	Arg	Thr	Val	Thr	Met	His	Lys
		100					105					110			
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His	Tyr	Val	Cys	Glu	Val	Asp	Gly	Gln	Asn	Val	Ile	Gly	Leu	Lys	Asp
145				150					155					160	
Lys	Lys	Ile	Met	Glu	Ile	Leu	Ala	Thr	Ala	Gly	Asn	Val	Val	Thr	Leu
			165					170						175	
Thr	Ile	Ile	Pro	Ser	Val	Ile	Tyr	Glu	His	Met	Val	Lys	Lys	Leu	Pro
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<210> 5163

<211> 1187

<212> DNA

<213> Homo sapiens

<400> 5163

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<210> 5164

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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Arg	His	Trp	Ala	Trp	Ser	Gly	Asp	Thr	Phe	Ser	Gly	Gln	Phe	Val	Leu
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Gly	Glu	Pro	Gln	Gly	Tyr	Gly	Val	Met	Glu	Tyr	Lys	Ala	Gly	Gly	Cys
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Tyr	Glu	Gly	Glu	Val	Ser	His	Gly	Met	Arg	Glu	Gly	His	Gly	Phe	Leu
65					70					75				80	
Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
				85				90						95	
Arg	His	Gly	Pro	Gly	Gln	Met	Leu	Phe	Gln	Asn	Gly	Asp	Lys	Tyr	Asp
			100					105					110		
Gly	Asp	Trp	Val	Arg	Asp	Arg	Arg	Gln	Gly	His	Gly	Val	Leu	Arg	Cys
		115					120						125		
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145		150		155
Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu				
	165		170	
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn				
	180		185	190
Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu				
	195	200		205
Gln Gly Glu Met Thr				
210				

&lt;210&gt; 5165

&lt;211&gt; 2370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5165

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 2370

&lt;210&gt; 5166

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

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Thr	His	Leu	Ser	Leu	Gln	Asp	Arg	Ser	Glu	Met	Gln	Leu	Gln	Ser	Glu

4348

450		455		460											
Arg	Ala	Asp	Gly	Leu	Phe	Tyr	Pro	Ser	Ala	Phe	Ser	Phe	Thr	Tyr	Thr
465				470					475						480
Pro	Glu	Tyr	Ser	Val	Arg	Pro	Gly	His	Pro	Gly	Val	Pro	Glu	Pro	Ala
			485						490					495	
Thr	Asp	Ala	Asp	Ala	Leu	Leu	Glu	Ser	Ile	His	Gln	Glu	Phe	Thr	Arg
		500						505					510		
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<210> 5167  
 <211> 878  
 <212> DNA  
 <213> Homo sapiens

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 878

<210> 5168  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 5168  
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		20						25					30		
Ser	Arg	Ala	Asp	Cys	Leu	Gly	Ala	Pro	Asn	Ile	Arg	Thr	Ala	Pro	Leu
		35					40					45			
Gly	Arg	Ser	Glu	Lys	Arg	Thr	Ala	Ile	Cys	Phe	Ser	Thr	Gly	Ala	Gln
	50					55					60				
Asp	Ser	Ser	Gln	Arg	Ala	Pro	Phe	Arg	Leu	Gln	Asn	Pro	Gly	Gln	Leu
65				70						75					80
Leu	Gln	Thr	Ser	Val	Arg	Asn	Leu	Val	Pro	Ser	Ile	Leu	His	Thr	Ser
			85						90					95	
Tyr	His	Ala	Ile	Phe	Asn	Pro	Arg	Thr	Trp	Val	Leu	Leu	Cys	Pro	Cys
		100						105					110		
Asp	Ile	Trp	Gly	Thr	Gln	Gly	Pro	Glu	Lys	Gly	Arg	Lys	Ile	Thr	His
	115						120					125			
Ala	Gly	Thr	Leu	Ser	Pro	Gln	Val	Lys	Leu	Arg	Thr	Gly	Asn	Gly	Lys
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Gln	Gly	Gly	Ser	Thr	Glu	Ala	Gly	Asn	Ser	Gly	Val	Ile	Ala	Trp	Leu
145					150					155					160
Ser	Leu	Glu	Cys	Thr	Pro	Ser	Thr	Ser	Thr	Gln	Ser	Ser	Pro	Gln	Leu
			165						170					175	
Thr	Leu	Pro	Ser	Ser	Ala	Ser	Ser	Ile	Ser	Ser	Arg	Glu	Thr	Ile	Leu
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Ile	Ala	Ser	Pro	Phe	Pro	Thr									
		195													

&lt;210&gt; 5169

&lt;211&gt; 609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5169

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 35 40 45  
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 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
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 180 185 190  
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His  
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<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

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<210> 5172  
<211> 104  
<212> PRT  
<213> Homo sapiens

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Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu  
35 40 45  
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser  
50 55 60  
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu  
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<210> 5173  
<211> 557  
<212> DNA  
<213> Homo sapiens

<400> 5173  
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300  
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<210> 5174  
<211> 93  
<212> PRT

<213> Homo sapiens

<400> 5174

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Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
      35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
      50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
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<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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      20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
      35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
      50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
      85           90

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<210> 5177

<211> 637



<212> DNA  
 <213> Homo sapiens

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 35 40 45  
 Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly  
 50 55 60  
 Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln  
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<210> 5179  
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 <212> DNA  
 <213> Homo sapiens

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120  
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240  
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300  
aaagatcagg gcttctttgt gaagaatcag gaaggggaag actttgaagg ggtgtgttgg  
360  
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480  
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1527

&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

Gly Thr Gln Ala Met Pro Pro Pro Leu Ser Trp Asp Tyr His Gln Cys  
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 20 25 30  
 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu  
 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
 65 70 75 80  
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
 100 105 110  
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
 115 120 125  
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe  
 130 135 140  
 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met  
 145 150 155 160  
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn  
 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
 180 185 190  
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
 225 230 235 240  
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 245 250 255  
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro  
 275 280 285  
 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp  
 290 295 300  
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 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
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 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
 340 345 350  
 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala  
 355 360 365  
 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val  
 370 375 380  
 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala  
 385 390 395 400  
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

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Val	Gly	Lys	Ser	Thr	Gly	Trp	Met	Thr	Glu	Ser	Ser								
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&lt;210&gt; 5181

&lt;211&gt; 4961

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5181

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 4961

&lt;210&gt; 5182

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5182

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			20					25					30		
Met	Gly	Ala	Leu	Ala	Ala	Ile	Leu	Ala	Tyr	Trp	Phe	Thr	His	Arg	Pro
		35					40					45			
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Glu	Asp	Ser	Gly	Gly	Ala	Arg	Arg	Ser	Val	Ile	Gly	Ser	Gly	Pro	Gln
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Arg	Arg	Gly	Leu	Ser	Ile	Ser	Gly	Asn	Gly	Pro	Cys	Leu	Gly	Phe	Arg
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Arg	Ala	Glu	Phe	Leu	Gly	Ser	Gly	Leu	Leu	Gln	His	Asn	Cys	Lys	Ala
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Cys	Thr	Asp	Gln	Phe	Ile	Gly	Val	Phe	Ala	Gln	Asn	Arg	Pro	Glu	Trp
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Ala	Asp	Ile	Ser	Thr	Val	Ile	Val	Asp	Lys	Pro	Gln	Lys	Ala	Val	Leu
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Thr	His	Gly	Asn	Val	Val	Ala	Asp	Phe	Ser	Gly	Phe	Leu	Lys	Val	Thr
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Glu	Ser	Gln	Trp	Ala	Pro	Thr	Cys	Ala	Asp	Val	His	Ile	Ser	Tyr	Leu
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Pro	Leu	Ala	His	Met	Phe	Glu	Arg	Met	Val	Gln	Ser	Val	Val	Tyr	Cys
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His	Gly	Gly	Arg	Val	Gly	Phe	Phe	Gln	Gly	Asp	Ile	Arg	Leu	Leu	Ser
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Leu	Leu	Asn	Arg	Met	Tyr	Asp	Lys	Ile	Phe	Ser	Gln	Ala	Asn	Thr	Pro
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Val	Arg	Ser	Gly	Ile	Ile	Arg	Asn	Asp	Ser	Ile	Trp	Asp	Glu	Leu	Phe
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Phe	Asn	Lys	Ile	Gln	Ala	Ser	Leu	Gly	Gly	Cys	Val	Arg	Met	Ile	Val
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Thr	Gly	Ala	Ala	Pro	Ala	Ser	Pro	Thr	Val	Leu	Gly	Phe	Leu	Arg	Ala
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Ala	Leu	Gly	Cys	Gln	Val	Tyr	Glu	Gly	Tyr	Gly	Gln	Thr	Glu	Cys	Thr
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Ala	Gly	Cys	Thr	Phe	Thr	Thr	Pro	Gly	Asp	Trp	Thr	Ser	Gly	His	Val
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Gly	Ala	Pro	Leu	Pro	Cys	Asn	His	Ile	Lys	Leu	Val	Asp	Val	Glu	Glu
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Leu	Asn	Tyr	Trp	Ala	Cys	Lys	Gly	Glu	Gly	Glu	Ile	Cys	Val	Arg	Gly
			500					505					510		
Pro	Asn	Val	Phe	Lys	Gly	Tyr	Leu	Lys	Asp	Pro	Asp	Arg	Thr	Lys	Glu
	515						520					525			
Ala	Leu	Asp	Ser	Asp	Gly	Trp	Leu	His	Thr	Gly	Asp	Ile	Gly	Lys	Trp
	530					535					540				
Leu	Pro	Ala	Gly	Thr	Leu	Lys	Ile	Ile	Asp	Arg	Lys	Lys	His	Ile	Phe
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Lys	Leu	Ala	Gln	Gly	Glu	Tyr	Val	Ala	Pro	Glu	Lys	Ile	Glu	Asn	Ile
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Tyr	Ile	Arg	Ser	Gln	Pro	Val	Ala	Gln	Ile	Tyr	Val	His	Gly	Asp	Ser
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Leu	Lys	Ala	Phe	Leu	Val	Gly	Ile	Val	Val	Pro	Asp	Pro	Glu	Val	Met
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680

685

695

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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5184

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

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			20					25					30		
Asp	Asp	Ala	Phe	Ile	Asn	Pro	His	Leu	Ala	Lys	Ile	Phe	Glu	Arg	Val
		35					40				45				
Arg	Gln	Ser	Ala	Asp	Phe	Met	Pro	Leu	Lys	Gln	Met	Met	Lys	Thr	Leu

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Glu Arg Pro Phe Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg
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Met Lys Gly Gly Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val
      100      105      110
Ala Gln Ser Ile Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn
      115      120      125
Met Ser Asn Met Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp
      130      135      140
Val Leu Arg Arg Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala
145      150      155      160
Ala Cys Ala Arg Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe
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Tyr Val Pro Glu Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr
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Thr Glu Leu Val Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser
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Gln Glu Ile Arg Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu
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Arg Glu Leu Phe Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser
225      230      235      240
Asn Phe Phe Tyr Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe
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      260      265      270
Ile Ile Arg Ala Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys
      275      280      285
Ser Ile Glu Met Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu
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Asp Ala His Leu Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser
305      310      315      320
Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His
      325      330      335
Asn Leu Ile Pro Val Met Leu Arg His Arg Leu Val Pro Pro Pro Glu
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Glu Thr Tyr Ser Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys
      355      360      365
Ser Lys Leu Lys Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala
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Tyr Ser Asn Tyr Cys Lys Arg Gln Ala Gln Gln
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&lt;210&gt; 5185

&lt;211&gt; 1657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5185

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120

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240  
tcacttgttt cacagatctc actctgtcac ccaggctgga gtacagtggg gcgatctcaa  
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&lt;210&gt; 5186

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 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser  
 50 55 60  
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg  
 65 70 75 80  
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr  
 85 90 95  
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn  
 100 105 110  
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val  
 115 120 125  
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala  
 130 135 140  
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu  
 145 150 155 160  
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys  
 165 170 175  
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu  
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 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp  
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 <213> Homo sapiens

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&lt;210&gt; 5188

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5188

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      35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
      50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
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Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
      85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
      100          105          110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
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      130          135          140
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145          150          155          160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
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Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
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Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
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Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
225          230          235          240
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Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
      355          360          365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
      370          375          380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
385          390          395          400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
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<211> 1632
<212> DNA
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 1632

<210> 5192  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 5192  
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 35 40 45  
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
 50 55 60  
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
 65 70 75 80  
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
 85 90 95  
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser  
 100 105 110  
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys  
 115 120 125  
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys  
 130 135 140  
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys  
 145 150 155 160  
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala  
 165 170 175  
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His  
 180 185 190  
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
 195 200 205  
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp  
 210 215 220  
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn  
 225 230 235 240  
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn  
 245 250 255  
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly  
 260 265 270  
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
 275 280 285  
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro  
 290 295 300  
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro  
 305 310 315 320  
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
 325 330 335  
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

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 Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg  
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 370 375

<210> 5193  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

<400> 5193  
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 554

<210> 5194  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5194  
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 Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp  
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 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly  
 35 40 45  
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg  
 50 55 60  
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala  
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 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg  
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<210> 5195  
 <211> 964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5195

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tgtgtcatct accatgagct ccagctctcc ctggcctgca aggtggccga caaggtgctg
240
gaggggcagc tcctggagac catcagccag ctctacctgt ccttgggcac cgagcggggcc
300
tacaaatccg cactggacta caccaaacga agtctgggga ttttcattga cctccagaag
360
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420
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480
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720
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840
ctggagtttg acgaggagac cctctactac gtgaagggtg acctggtgct cggtgacatc
900
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960
gccg
964

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&lt;210&gt; 5196

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5196

```

Met Pro Ser Glu Ala Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser
 1             5             10             15
Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
      20             25             30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
      35             40             45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
      50             55             60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65					70					75					80	
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Ala	Gln	Asn	Val	Ala	Leu	Tyr	Thr	Gly	Asp	Pro	Asn	Leu	Gly	Leu	Glu	
				100					105					110		
Leu	Phe	Glu	Ala	Ala	Gly	Asp	Ile	Phe	Phe	Asp	Gly	Ala	Trp	Glu	Arg	
				115					120					125		
Glu	Lys	Ala	Val	Ser	Phe	Tyr	Arg	Asp	Arg	Ala	Leu	Pro	Leu	Ala	Val	
				130					135					140		
Thr	Thr	Gly	Asn	Arg	Lys	Ala	Glu	Leu	Arg	Leu	Cys	Asn	Lys	Leu	Val	
				145					150					155		
Ala	Leu	Leu	Ala	Thr	Leu	Glu	Glu	Pro	Gln	Glu	Gly	Leu	Glu	Phe	Ala	
				165					170					175		
His	Met	Ala	Leu	Ala	Leu	Ser	Ile	Thr	Leu	Gly	Asp	Arg	Leu	Asn	Glu	
				180					185					190		
Arg	Val	Ala	Tyr	His	Arg	Leu	Ala	Ala	Leu	Gln	His	Arg	Leu	Gly	His	
				195					200					205		
Gly	Glu	Leu	Ala	Glu	His	Phe	Tyr	Leu	Lys	Ala	Leu	Ser	Leu	Cys	Asn	
				210					215					220		
Ser	Pro	Leu	Glu	Phe	Asp	Glu	Glu	Thr	Leu	Tyr	Tyr	Val	Lys	Val	Tyr	
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Leu	Val	Leu	Gly	Asp	Ile	Ile	Phe	Tyr	Asp	Leu	Lys	Asp	Pro	Phe	Asp	
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<210> 5197
<211> 1045
<212> DNA
<213> Homo sapiens
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240
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300
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360
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420
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480
ccgcccagga agcttcatgg ctgggcacca ggccctgact accagaagtc atcaatgggc
540
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600
ttcattcagt cagagatgtc cgaggcgggtg gagcgagccc gaaagcgccg ggaagaagag
660

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 780  
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 840  
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 960  
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<210> 5198  
 <211> 283  
 <212> PRT  
 <213> Homo sapiens

<400> 5198  
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 Glu Glu Glu Glu Glu Val Val Lys Asp Gly Arg Pro Lys Trp Asn Ser  
 35 40 45  
 Trp Asp Pro Arg Arg Gln Arg Gln Leu Ser Met Ser Ser Ala Asp Ser  
 50 55 60  
 Ala Asp Ala Lys Arg Thr Arg Glu Glu Gly Lys Asp Trp Ala Glu Ala  
 65 70 75 80  
 Val Gly Ala Ser Arg Val Val Arg Lys Ala Pro Asp Pro Gln Pro Pro  
 85 90 95  
 Pro Arg Lys Leu His Gly Trp Ala Pro Gly Pro Asp Tyr Gln Lys Ser  
 100 105 110  
 Ser Met Gly Ser Met Phe Arg Gln Gln Ser Ile Glu Asp Lys Glu Asp  
 115 120 125  
 Lys Pro Pro Pro Arg Gln Lys Phe Ile Gln Ser Glu Met Ser Glu Ala  
 130 135 140  
 Val Glu Arg Ala Arg Lys Arg Arg Glu Glu Glu Glu Arg Arg Ala Arg  
 145 150 155 160  
 Glu Glu Arg Leu Ala Ala Cys Ala Ala Lys Leu Lys Gln Leu Asp Gln  
 165 170 175  
 Lys Cys Lys Gln Ala Arg Lys Ala Gly Glu Ala Arg Lys Gln Ala Glu  
 180 185 190  
 Lys Glu Val Pro Trp Ser Pro Ser Ala Glu Lys Ala Ser Pro Gln Glu  
 195 200 205  
 Asn Gly Pro Ala Val His Lys Gly Ser Pro Glu Phe Pro Ala Gln Glu  
 210 215 220  
 Thr Pro Thr Thr Phe Pro Glu Glu Ala Pro Thr Val Ser Pro Ala Val  
 225 230 235 240  
 Ala Gln Ser Asn Ser Ser Glu Glu Glu Ala Arg Glu Ala Gly Ser Pro  
 245 250 255  
 Ala Gln Glu Phe Lys Tyr Gln Lys Ser Leu Pro Pro Arg Phe Gln Arg

260 265 270  
 Gln Gln Gln Gln Gln Gln Gln Glu Gln Leu Tyr  
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<210> 5199  
 <211> 1332  
 <212> DNA  
 <213> Homo sapiens

<400> 5199  
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1332

<210> 5200  
<211> 358  
<212> PRT  
<213> Homo sapiens

<400> 5200  
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35 40 45  
Gln Gly Ala Asp Asp Val Thr Ser Val Leu Phe Ser Pro Ser Cys Pro  
50 55 60  
Thr Lys Leu Tyr Ala Ser His Gly Glu Thr Ile Ser Val Leu Asp Val  
65 70 75 80  
Arg Ser Leu Lys Asp Ser Leu Asp His Phe His Val Asn Glu Glu Glu  
85 90 95  
Ile Asn Cys Leu Ser Leu Asn Gln Thr Glu Asn Leu Leu Ala Ser Ala  
100 105 110  
Asp Asp Ser Gly Ala Ile Lys Ile Leu Asp Leu Glu Asn Lys Lys Val  
115 120 125  
Ile Arg Ser Leu Lys Arg His Ser Asn Ile Cys Ser Ser Val Ala Phe  
130 135 140  
Arg Pro Gln Arg Pro Gln Ser Leu Val Ser Cys Gly Leu Asp Met Gln  
145 150 155 160  
Val Met Leu Trp Ser Leu Gln Lys Ala Arg Pro Leu Trp Ile Thr Asn  
165 170 175  
Leu Gln Glu Asp Glu Thr Glu Glu Met Glu Gly Pro Gln Ser Pro Gly  
180 185 190  
Gln Leu Leu Asn Pro Ala Leu Ala His Ser Ile Ser Val Ala Ser Cys  
195 200 205  
Gly Asn Ile Phe Ser Cys Gly Ala Glu Asp Gly Lys Val Arg Ile Phe  
210 215 220  
Arg Val Met Gly Val Lys Cys Glu Gln Glu Leu Gly Phe Lys Gly His  
225 230 235 240  
Thr Ser Gly Val Ser Gln Val Cys Phe Leu Pro Glu Ser Tyr Leu Leu  
245 250 255  
Leu Thr Gly Gly Asn Asp Gly Lys Ile Thr Leu Trp Asp Ala Asn Ser  
260 265 270  
Glu Val Glu Lys Lys Gln Lys Ser Pro Thr Lys Arg Thr His Arg Lys  
275 280 285  
Lys Pro Lys Arg Gly Thr Cys Thr Lys Gln Gly Gly Asn Thr Asn Ala  
290 295 300  
Ser Val Thr Asp Glu Glu Glu His Gly Asn Ile Leu Pro Lys Leu Asn  
305 310 315 320  
Ile Glu His Gly Glu Lys Val Asn Trp Leu Leu Gly Thr Lys Ile Lys  
325 330 335  
Gly His Gln Asn Ile Leu Val Ala Asp Gln Thr Ser Cys Ile Ser Val  
340 345 350  
Tyr Pro Leu Asn Glu Phe



355

&lt;210&gt; 5201

&lt;211&gt; 6104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5201

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&lt;210&gt; 5202

&lt;211&gt; 108

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5202

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          20           25           30
Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
          35           40           45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
          50           55           60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
65           70           75           80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
          85           90           95
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<210> 5203

<211> 1863

<212> DNA

<213> Homo sapiens

<400> 5203

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 1860  
 aaa  
 1863

&lt;210&gt; 5204

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5204

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Asp	Leu	Val	Glu	Tyr	Phe	Lys	Ala	Tyr	Ile	Lys	Ile	Tyr	Gln	Gly	Glu
			20					25					30		
Glu	Leu	Pro	His	Pro	Lys	Ser	Met	Leu	Gln	Ala	Thr	Ala	Glu	Ala	Asn
			35				40					45			
Asn	Leu	Ala	Ala	Val	Ala	Gly	Ala	Arg	Asp	Thr	Tyr	Cys	Lys	Ser	Met
			50				55				60				
Glu	Gln	Val	Cys	Gly	Gly	Asp	Lys	Pro	Tyr	Ile	Ala	Pro	Ser	Asp	Leu
65					70					75				80	
Glu	Arg	Lys	His	Leu	Asp	Leu	Lys	Glu	Val	Ala	Ile	Lys	Gln	Phe	Arg
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Ser	Val	Lys	Lys	Met	Gly	Gly	Asp	Glu	Phe	Cys	Arg	Arg	Tyr	Gln	Asp

[illegible]

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<210> 5205
<211> 2011
<212> DNA
<213> Homo sapiens
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840

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<210> 5206

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5206

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			20					25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
			35				40					45			
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn



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65	70	75
Ser Gly Gly Asn Pro	Ile Leu Phe Glu Leu Glu	Lys Asn Leu Tyr Pro
85	90	95
Thr Val Tyr Thr Leu Trp	Ser Tyr Pro Asp Leu Leu	Pro Thr Phe Thr
100	105	110
Thr Trp Pro Leu Val Leu	Glu Lys Leu Val Gly Gly	Ala Asp Leu Met
115	120	125
Leu Pro Gly Leu Val Met	Pro Pro Ala Gly Leu Pro	Gln Val Gln Lys
130	135	140
Gly Asp Leu Cys Ala Ile	Ser Leu Val Gly Asn Arg	Ala Pro Val Ala
145	150	155
Ile Gly Val Ala Ala Met	Ser Thr Ala Glu Met Leu	Thr Ser Gly Leu
165	170	175
Lys Gly Arg Gly Phe Ser	Val Leu His Thr Tyr Gln	Asp His Leu Trp
180	185	190
Arg Ser Gly Asn Lys Ser	Ser Pro Pro Ser Ile Ala	Pro Leu Ala Leu
195	200	205
Asp Ser Ala Asp Leu Ser	Glu Glu Lys Gly Ser Val	Gln Met Asp Ser
210	215	220
Thr Leu Gln Gly Asp Met	Arg His Met Thr Leu Glu	Gly Glu Glu Glu
225	230	235
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245		

&lt;210&gt; 5207

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5207

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&lt;210&gt; 5208

<211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 5208

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Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
          35           40           45
Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
          50           55           60
Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
65           70           75           80
Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
          85           90           95
Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
          100          105          110
Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn
          115          120          125
Lys Arg Asp Leu Gln Arg Gly Arg
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<210> 5209  
 <211> 1592  
 <212> DNA  
 <213> Homo sapiens

<400> 5209

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<210> 5210

<211> 85

<212> PRT

<213> Homo sapiens

<400> 5210

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Leu	Met	Arg	Ser	Val	Pro	Asp	Pro	Ser	Thr	Arg	Ala	Leu	Leu	Leu	Leu
			20					25					30		
Ala	Leu	Leu	Ile	Leu	Tyr	Ala	Leu	Leu	Ser	Arg	Leu	Thr	Gly	Ser	Arg
		35				40						45			
Ala	Ser	Gly	Ala	Gln	Leu	Glu	Ala	Lys	Val	Arg	Gly	Leu	Glu	Arg	Gln
	50					55					60				
Val	Glu	Glu	Leu	Arg	Trp	Arg	Gln	Arg	Arg	Ala	Ala	Lys	Gly	Ala	Arg
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Ser	Val	Glu	Glu	Glu											
				85											

<210> 5211

<211> 602

<212> DNA

<213> Homo sapiens

&lt;400&gt; 5211

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300  
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602

&lt;210&gt; 5212

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5212

Met	Gly	Arg	Ala	Val	Lys	Val	Leu	Gln	Leu	Phe	Lys	Thr	Leu	His	Arg
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Thr	Arg	Gln	Gln	Val	Phe	Lys	Asn	Asp	Ala	Arg	Ala	Leu	Glu	Ala	Ala
		20					25					30			
Arg	Ile	Lys	Ile	Asn	Glu	Glu	Phe	Lys	Asn	Asn	Lys	Ser	Glu	Thr	Ser
		35					40					45			
Ser	Lys	Lys	Ile	Glu	Glu	Leu	Met	Lys	Ile	Gly	Ser	Asp	Val	Glu	Leu
		50				55					60				
Leu	Leu	Arg	Thr	Ser	Val	Ile	Gln	Gly	Ile	His	Thr	Asp	His	Asn	Thr
65					70				75					80	
Leu	Lys	Leu	Val	Pro	Arg	Lys	Asp	Leu	Leu	Val	Glu	Asn	Val	Pro	Tyr
			85					90						95	
Cys	Asp	Ala	Pro	Thr	Gln	Lys	Gln								
			100												

&lt;210&gt; 5213

&lt;211&gt; 4387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5213

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60

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120  
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<210> 5214

<211> 1364

<212> PRT

<213> Homo sapiens

<400> 5214

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			20					25					30		
Glu	Lys	Thr	Lys	Leu	Ile	Ser	Cys	Leu	Gly	Ala	Phe	Arg	Gln	Phe	Trp
		35					40					45			
Gly	Gly	Leu	Ser	Gln	Glu	Ser	His	Glu	Gln	Cys	Ile	Gln	Trp	Ile	Val
	50					55				60					
Lys	Phe	Ile	His	Gly	Gln	His	Ser	Pro	Lys	Arg	Ile	Ser	Phe	Leu	Tyr

65					70					75					80
Asp	Cys	Leu	Ala	Met	Ala	Val	Glu	Thr	Gly	Leu	Leu	Pro	Pro	Arg	Leu
				85					90					95	
Val	Cys	Glu	Ser	Leu	Ile	Asn	Ser	Asp	Thr	Leu	Glu	Trp	Glu	Arg	Thr
			100					105					110		
Gln	Leu	Trp	Ala	Leu	Thr	Phe	Lys	Leu	Val	Arg	Lys	Ile	Ile	Gly	Gly
		115					120					125			
Val	Asp	Tyr	Lys	Gly	Val	Arg	Asp	Leu	Leu	Lys	Val	Ile	Leu	Glu	Lys
	130					135					140				
Ile	Leu	Thr	Ile	Pro	Asn	Thr	Val	Ser	Ser	Ala	Val	Val	Gln	Gln	Leu
145					150					155					160
Leu	Ala	Ala	Arg	Glu	Val	Ile	Ala	Tyr	Ile	Leu	Glu	Arg	Asn	Ala	Cys
				165					170					175	
Leu	Leu	Pro	Ala	Tyr	Phe	Ala	Val	Thr	Glu	Ile	Arg	Lys	Leu	Tyr	Pro
			180					185					190		
Glu	Gly	Lys	Leu	Pro	His	Trp	Leu	Leu	Gly	Asn	Leu	Val	Ser	Asp	Phe
		195					200					205			
Val	Asp	Thr	Phe	Arg	Pro	Thr	Ala	Arg	Ile	Asn	Ser	Ile	Cys	Gly	Arg
	210					215					220				
Cys	Ser	Leu	Leu	Pro	Val	Val	Asn	Asn	Ser	Gly	Ala	Ile	Cys	Asn	Ser
225					230					235					240
Trp	Lys	Leu	Asp	Pro	Ala	Thr	Leu	Arg	Phe	Pro	Leu	Lys	Gly	Leu	Leu
				245					250					255	
Pro	Tyr	Asp	Lys	Asp	Leu	Phe	Glu	Pro	Gln	Thr	Ala	Leu	Leu	Arg	Tyr
		260					265						270		
Val	Leu	Glu	Gln	Pro	Tyr	Ser	Arg	Asp	Met	Val	Cys	Asn	Met	Leu	Gly
		275					280					285			
Leu	Asn	Lys	Gln	His	Lys	Gln	Arg	Cys	Pro	Val	Leu	Glu	Asp	Gln	Leu
	290					295					300				
Val	Asp	Leu	Val	Val	Tyr	Ala	Met	Glu	Arg	Ser	Glu	Thr	Glu	Glu	Lys
305					310					315					320
Phe	Asp	Asp	Gly	Gly	Thr	Ser	Gln	Leu	Leu	Trp	Gln	His	Leu	Ser	Ser
			325						330					335	
Gln	Leu	Ile	Phe	Phe	Val	Leu	Phe	Gln	Phe	Ala	Ser	Phe	Pro	His	Met
			340					345					350		
Val	Leu	Ser	Leu	His	Gln	Lys	Leu	Ala	Gly	Arg	Gly	Leu	Ile	Lys	Gly
		355					360					365			
Arg	Asp	His	Leu	Met	Trp	Val	Leu	Leu	Gln	Phe	Ile	Ser	Gly	Ser	Ile
	370					375						380			
Gln	Lys	Asn	Ala	Leu	Ala	Asp	Phe	Leu	Pro	Val	Met	Lys	Leu	Phe	Asp
385					390					395					400
Leu	Leu	Tyr	Pro	Glu	Lys	Glu	Tyr	Ile	Pro	Val	Pro	Asp	Ile	Asn	Lys
				405					410					415	
Pro	Gln	Ser	Thr	His	Ala	Phe	Ala	Met	Thr	Cys	Ile	Trp	Ile	His	Leu
			420					425					430		
Asn	Arg	Lys	Ala	Gln	Asn	Asp	Asn	Ser	Lys	Leu	Gln	Ile	Pro	Ile	Pro
		435					440					445			
His	Ser	Leu	Arg	Leu	His	His	Glu	Phe	Leu	Gln	Gln	Ser	Leu	Arg	His
	450					455					460				
Lys	Ser	Leu	Gln	Met	Asn	Asp	Tyr	Lys	Ile	Ala	Leu	Leu	Cys	Asn	Ala
465					470				475						480
Tyr	Ser	Thr	Asn	Ser	Glu	Cys	Val	Thr	Leu	Pro	Met	Gly	Ala	Leu	Val
				485					490					495	
Glu	Thr	Ile	Tyr	Gly	Asn	Gly	Ile	Met	Arg	Leu	Pro	Leu	Pro	Gly	Thr



	500		505		510										
Asn	Cys	Met	Ala	Ser	Ala	Ser	Ile	Thr	Pro	Leu	Pro	Met	Asn	Leu	Leu
	515						520					525			
Asp	Ser	Leu	Thr	Val	His	Ala	Lys	Met	Ser	Leu	Ile	His	Ser	Ile	Ala
	530						535					540			
Thr	Arg	Val	Ile	Lys	Leu	Ala	His	Ala	Lys	Ser	Ser	Val	Ala	Leu	Ala
545					550					555				560	
Pro	Ala	Leu	Val	Glu	Thr	Tyr	Ser	Arg	Leu	Leu	Val	Tyr	Met	Glu	Ile
			565					570						575	
Glu	Ser	Leu	Gly	Ile	Lys	Gly	Phe	Ile	Ser	Gln	Leu	Leu	Pro	Thr	Val
		580						585					590		
Phe	Lys	Ser	His	Ala	Trp	Gly	Ile	Leu	His	Thr	Leu	Leu	Glu	Met	Phe
	595					600						605			
Ser	Tyr	Arg	Met	His	His	Ile	Gln	Pro	His	Tyr	Arg	Val	Gln	Leu	Leu
	610					615					620				
Ser	His	Leu	His	Thr	Leu	Ala	Ala	Val	Ala	Gln	Thr	Asn	Gln	Asn	Gln
625					630					635				640	
Leu	His	Leu	Cys	Val	Glu	Ser	Thr	Ala	Leu	Arg	Leu	Ile	Thr	Ala	Leu
			645						650					655	
Gly	Ser	Ser	Glu	Val	Gln	Pro	Gln	Phe	Thr	Arg	Phe	Leu	Ser	Asp	Pro
		660						665				670			
Lys	Thr	Val	Leu	Ser	Ala	Glu	Ser	Glu	Glu	Leu	Asn	Arg	Ala	Leu	Ile
	675						680					685			
Leu	Thr	Leu	Ala	Arg	Ala	Thr	His	Val	Thr	Asp	Phe	Phe	Thr	Gly	Ser
	690					695					700				
Asp	Ser	Ile	Gln	Gly	Thr	Trp	Cys	Lys	Asp	Ile	Leu	Gln	Thr	Ile	Met
705					710					715				720	
Ser	Phe	Thr	Pro	His	Asn	Trp	Ala	Ser	His	Thr	Leu	Ser	Cys	Phe	Pro
			725						730					735	
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		740						745				750			
Arg	Phe	Asn	Leu	Lys	Lys	Asn	Val	Glu	Glu	Glu	Tyr	Arg	Lys	Trp	Lys
	755						760					765			
Ser	Met	Ser	Asn	Glu	Asn	Asp	Ile	Ile	Thr	His	Phe	Ser	Met	Gln	Gly
	770					775					780				
Ser	Pro	Pro	Leu	Phe	Leu	Cys	Leu	Leu	Trp	Lys	Met	Leu	Leu	Glu	Thr
785					790					795				800	
Asp	His	Ile	Asn	Gln	Ile	Gly	Tyr	Arg	Val	Leu	Glu	Arg	Ile	Gly	Ala
			805						810					815	
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		820						825					830		
Glu	Phe	Ser	Thr	Ser	Ala	Gly	Gly	Gln	Gln	Leu	Asn	Lys	Cys	Ile	Glu
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Ile	Leu	Asn	Asp	Met	Val	Trp	Lys	Tyr	Asn	Ile	Val	Thr	Leu	Asp	Arg
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865					870					875				880	
Val	Cys	Tyr	Phe	Ile	Ile	Gln	Leu	Leu	Leu	Leu	Lys	Pro	Asn	Asp	Phe
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Arg	Asn	Arg	Val	Ser	Asp	Phe	Val	Lys	Glu	Asn	Ser	Pro	Glu	His	Trp
		900						905					910		
Leu	Gln	Asn	Asp	Trp	His	Thr	Lys	His	Met	Asn	Tyr	His	Lys	Lys	Tyr
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Pro	Glu	Lys	Leu	Tyr	Phe	Glu	Gly	Leu	Ala	Glu	Gln	Val	Asp	Pro	Pro

930	935	940
Val Gln Ile Gln Ser Pro Tyr Leu Pro Ile Tyr Phe Gly Asn Val Cys		
945	950	955
Leu Arg Phe Leu Pro Val Phe Asp Ile Val Ile His Arg Phe Leu Glu		960
	965	970
Leu Leu Pro Val Ser Lys Ser Leu Glu Thr Leu Leu Asp His Leu Gly		975
	980	985
Gly Leu Tyr Lys Phe His Asp Arg Pro Val Thr Tyr Leu Tyr Asn Thr		990
	995	1000
Leu His Tyr Tyr Glu Met His Leu Arg Asp Arg Ala Phe Leu Lys Arg		1005
	1010	1015
Lys Leu Val His Ala Ile Ile Gly Ser Leu Lys Asp Asn Arg Pro Gln		1020
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Gly Trp Cys Leu Ser Asp Thr Tyr Leu Lys Cys Ala Met Asn Ala Arg		1040
	1045	1050
Glu Glu Asn Pro Trp Val Pro Asp Asp Thr Tyr Tyr Cys Arg Leu Ile		1055
	1060	1065
Gly Arg Leu Val Asp Thr Met Ala Gly Lys Ser Pro Gly Pro Phe Pro		1070
	1075	1080
Asn Cys Asp Trp Arg Phe Asn Glu Phe Pro Asn Pro Ala Ala His Ala		1085
	1090	1095
Leu His Val Thr Cys Val Glu Leu Met Ala Leu Ala Val Ser Gly Lys		1100
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Glu Val Gly Asn Ala Leu Leu Asn Val Val Leu Lys Ser Gln Pro Leu		1120
	1125	1130
Val Pro Arg Glu Asn Ile Thr Ala Trp Met Asn Ala Ile Gly Leu Ile		1135
	1140	1145
Ile Thr Ala Leu Pro Glu Pro Tyr Trp Ile Val Leu His Asp Arg Ile		1150
	1155	1160
Val Ser Val Ile Ser Ser Pro Ser Leu Thr Ser Glu Thr Glu Trp Val		1165
	1170	1175
Gly Tyr Pro Phe Arg Leu Phe Asp Phe Thr Ala Cys His Gln Ser Tyr		1180
1185	1190	1195
Ser Glu Met Ser Cys Ser Tyr Thr Leu Ala Leu Ala His Ala Val Trp		1200
	1205	1210
His His Ser Ser Ile Gly Gln Leu Ser Leu Ile Pro Lys Phe Leu Thr		1215
	1220	1225
Glu Val Leu Leu Pro Ile Val Lys Thr Glu Phe Gln Leu Leu Tyr Val		1230
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Tyr His Leu Val Gly Pro Phe Leu Gln Arg Phe Gln Gln Glu Arg Thr		1245
	1250	1255
Arg Cys Met Ile Glu Ile Gly Val Ala Phe Tyr Asp Met Leu Leu Asn		1260
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Val Asp Gln Cys Ser Thr His Leu Asn Tyr Met Asp Pro Ile Cys Asp		1280
	1285	1290
Phe Leu Tyr His Met Lys Tyr Met Phe Thr Gly Asp Ser Val Lys Glu		1295
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Gln Val Glu Lys Ile Ile Cys Asn Leu Lys Pro Ala Leu Lys Leu Arg		1310
	1315	1320
Leu Arg Phe Ile Thr His Ile Ser Lys Met Glu Pro Ala Ala Val Pro		1325
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Pro Gln Ala Met Asn Ser Gly Ser Pro Ala Pro Gln Ser Asn Gln Val		1340
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 <211> 548  
 <212> DNA  
 <213> Homo sapiens

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<210> 5216  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

<400> 5216  
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 Val Asp Glu Ala Ala Ala Gly Xaa Glu Arg Thr Asp Cys Ser Ser Glu  
 35 40 45  
 Arg Arg Ser Ala Val Gly Ser Met Leu Ser Asp Ser Ile Thr Pro His  
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 Arg Glu Ile Phe His Glu Arg Lys Ser Pro Ser Leu Trp Pro Thr Phe  
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 Leu Trp Ser

<210> 5217  
 <211> 4189  
 <212> DNA  
 <213> Homo sapiens

<400> 5217

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<210> 5218

<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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			20					25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40					45			
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
	50					55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
65					70				75					80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
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Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
		100						105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

	115		120		125	
Arg	His	Pro	Glu	His	Ala	Gly
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Gln	Glu	Arg	Gly	Leu	Arg	Ser
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Ala	Ser	Leu	Glu	Glu	Leu	Gln
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Leu	Tyr	Gly	Thr	Asn	Pro	Leu
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Leu	Ala	Gly	Leu	Leu	Ala	Gln
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Gly	Val	Gly	Val	Asp	Thr	Asp
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Asn	Ala	Ala	Arg	Trp	Ala	Ala
	225					230
Val	Ala	Ser	Arg	Glu	Leu	Lys
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Gly	His	His	Ala	Asp	His	Ser
						260
Ser	Val	Ala	Ile	Ala	Cys	Arg
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Lys	Ile	Leu	Ile	Val	Asp	Trp
	290					295
Gln	Thr	Phe	Tyr	Gln	Asp	Pro
	305					310
His	Asp	Asp	Gly	Asn	Phe	Phe
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Gly	Ala	Gly	Ser	Gly	Glu	Gly
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Gly	Leu	Asp	Pro	Pro	Met	Gly
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Ile	Val	Val	Met	Pro	Ile	Ala
	370					375
Val	Ser	Ala	Gly	Phe	Asp	Ala
	385					390
Gly	Tyr	His	Val	Ser	Ala	Lys
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Met	Asn	Leu	Ala	Gly	Gly	Ala
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Asp	Leu	Thr	Ala	Ile	Cys	Asp
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Leu	Gly	Asn	Arg	Val	Asp	Pro
	450					455
Pro	Asn	Leu	Asn	Ala	Ile	Arg
	465					470
Ser	Lys	Tyr	Trp	Gly	Cys	Met
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Trp	Val	Pro	Arg	Val	Pro	Gly
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Thr	Ala	Leu	Ala	Ser	Leu	Ser
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Ser	Glu	Gln	Leu	Val	Glu	Glu
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<210> 5219  
<211> 1212  
<212> DNA  
<213> Homo sapiens

<400> 5219  
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1212

<210> 5220  
<211> 179  
<212> PRT  
<213> Homo sapiens



&lt;400&gt; 5220

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 Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu  
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 Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro  
 35 40 45  
 Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro  
 50 55 60  
 Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro  
 65 70 75 80  
 Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly  
 85 90 95  
 Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg  
 100 105 110  
 Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln  
 115 120 125  
 Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys  
 130 135 140  
 Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu  
 145 150 155 160  
 Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg  
 165 170 175  
 Ile Thr Gly

&lt;210&gt; 5221

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5221

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&lt;210&gt; 5222

&lt;211&gt; 112

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5222

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 20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
 100          105          110

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<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

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Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

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Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100           105           110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115           120           125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130           135           140
Gln Thr Ser Thr
145

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&lt;210&gt; 5225

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5225

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300
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ccccacatga aggttaggaa ccaagagaac ggcc
394

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&lt;210&gt; 5226

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5226

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Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

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50		55		60											
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
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Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
			85						90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
			100					105						110	
Pro															

&lt;210&gt; 5227

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5227

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&lt;211&gt; 1031

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5229

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&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

Lys Thr Ile Val Leu Pro Pro Asn Trp Lys Thr Ala Arg Asp Pro Glu

1	5	10	15
Gly Lys Ile Tyr Tyr Tyr His Val Ile Thr Arg Gln Thr Gln Trp Asp			
20	25	30	
Pro Pro Thr Trp Glu Ser Pro Gly Asp Asp Ala Ser Leu Glu His Glu			
35	40	45	
Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys			
50	55	60	
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
65	70	75	80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
100	105	110	
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
115	120	125	
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
145	150	155	160
Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu			
165	170	175	
Leu Glu			

&lt;210&gt; 5237

&lt;211&gt; 1238

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5237

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 tctttttttt tcaccatata tttccctaag gcagctcctt attctgtagg aattgccaat  
 120  
 gttgatgtgt tattgttagg tatttatatc attcacaggg ctgtcagaaa tcccgatgat  
 180  
 cttgaagcaa ggtctcatat gcacttggca agtgcttttg ctggcatcgg ctttggaat  
 240  
 gctggtgttc atctgtgcca tggaatgtct tacccaattt caggtttagt gaagatgtat  
 300  
 aaagcaaagg attacaatgt ggatcaccca ctggtgcccc atggcctttc tgtggtgctc  
 360  
 acgtccccag cgggtgtcac tttcacggcc cagatgtttc cagagcgaca cctggagatg  
 420  
 gcagaaatac tgggagccga caccgcact gccaggatcc aagatgcagg gctggtgttg  
 480  
 gcagacacgc tccggaattt cttattcgat ctggatgttg atgatggcct agcagctgtt  
 540  
 ggttactcca aagctgatat ccccgacta gtgaaaggaa cgctgcccc ggaaggggtc  
 600  
 accaagcttg caccctgtcc ccagtcagaa gaggatctgg ctgctctgtt tgaagcttca  
 660  
 atgaaactgt attaattgtc attttaactg aaagaattac cgctggccat tgtagtgtg  
 720

agagcaagag ctgatctagc tagggctttg tcttttcac tttgtgcata acttacctgt  
 780  
 taccagtata ggtgggatat acatttatct tgcaggaaat tccccaaagc tcagagtcca  
 840  
 gttccttcca taaaacaggc tggacaaatg accactatgt tagacccccca ggctcgactt  
 900  
 caggggtcag tggtcctgtc ccaaacccca cacagaatac tctgcctctg cttcatgtag  
 960  
 caaatgagca aaaactcagt atctatcaaaa agtgtaaatt atatttccta tgcttagtaa  
 1020  
 ttcacttcat gtctaaaaat ttatctgata gaaacactag caccagtaca tacagaagca  
 1080  
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 1140  
 attcattatt ggtatataga tcacttatag tatactagac agtgggaatac tatggtactg  
 1200  
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 1238

&lt;210&gt; 5238

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5238

Phe	Phe	Phe	Leu	Pro	Ser	Ser	Ile	Ser	Phe	Phe	Phe	Thr	Ile	Ser	Phe
1				5				10						15	
Pro	Lys	Ala	Ala	Pro	Tyr	Ser	Val	Gly	Ile	Ala	Asn	Val	Asp	Val	Leu
		20						25					30		
Leu	Leu	Gly	Ile	Tyr	Ile	Ile	His	Arg	Ala	Val	Arg	Asn	Pro	Asp	Asp
	35					40						45			
Leu	Glu	Ala	Arg	Ser	His	Met	His	Leu	Ala	Ser	Ala	Phe	Ala	Gly	Ile
	50					55					60				
Gly	Phe	Gly	Asn	Ala	Gly	Val	His	Leu	Cys	His	Gly	Met	Ser	Tyr	Pro
65			70					75					80		
Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val	Asp
			85					90					95		
His	Pro	Leu	Val	Pro	His	Gly	Leu	Ser	Val	Val	Leu	Thr	Ser	Pro	Ala
		100					105						110		
Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
	115					120						125			
Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp	Ala
	130				135					140					
Gly	Leu	Val	Leu	Ala	Asp	Thr	Leu	Arg	Lys	Phe	Leu	Phe	Asp	Leu	Asp
145				150				155					160		
Val	Asp	Asp	Gly	Leu	Ala	Ala	Val	Gly	Tyr	Ser	Lys	Ala	Asp	Ile	Pro
			165				170						175		
Ala	Leu	Val	Lys	Gly	Thr	Leu	Pro	Gln	Glu	Arg	Val	Thr	Lys	Leu	Ala
		180				185						190			
Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
		195				200						205			
Met	Lys	Leu	Tyr												
		210													

<210> 5239  
<211> 2061  
<212> DNA  
<213> Homo sapiens

<400> 5239  
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120  
taaaaacaaa agaggtgagt gagaatcgtc acctttctgc tttccttcct cacttggcca  
180  
ggctctagta ctccaccttt gagctgccat gcccaatagg ggaagtccaa aattaaat  
240  
acaaccggtg tagaagaaaa taaatgggga gtgaaataga agaaaagatg agggagggga  
300  
gtgctaatat ttacactaga gttttataga caactgtccc attccatccc aattccaatc  
360  
ctgaccaga aagtgatggt ggcaggcca agagacagag attatgtgtc gggacacaga  
420  
cagcctcca tcccaaccg taatggattc aatttcaagt ccacagagtg gggaggaagg  
480  
atagggtggg aaagtgcagc actcattttc aaacaagtct cccttgagaa ttctgcctt  
540  
gaagtgcaga cagtatccaa gctccagggg ataggctgag gaccctgagg ctcagttccc  
600  
aaatcatgtt gtcatttgga agttccaggc taaagttggt gccatcaggg ctctccagat  
660  
ttgggaggcc cccctaaccg cggggcctct ggcctcagtt ccttgcatth ctggcaataa  
720  
aagaagtcgg ggacgttggt cttcttaatc ttagcacagg agaggtggat ccacgtccca  
780  
cacaggctgc actcaatcat gggcgcgcct gcaaagggct ttcgacagta acatgtgatc  
840  
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900  
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960  
tcaactgtcag caggagggac tcttcaggg tgcaactgtg cagggggcct aggagcctca  
1020  
gggggtgttg gcagcacagg gactggggct tcaccccta ccaactgttg catctctct  
1080  
tcttcttctt ctctctctc tctctctctc tcttcagagt ctgtatcact ggggggtgcc  
1140  
tggggaggcc caggaggtgg gactctatcc cccgttctg ccttttttaa cttccgttc  
1200  
ttgtctctct tgattcgaga tctcttttcc ccatccccag gagttggccg aggcctccga  
1260  
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1320  
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1380  
cgggaggtat gtgtcagggg tgtgggggac aaaggagatg ccaacttggg cccatccaga  
1440



tcaaagagag agtccttgag cttcatcttc tcaagcaagg tagcactgtc gggggcctgc  
 1500  
 agacgagaga aagtggacct tgggggtcct ggctgggtgg gacctgcttg agctgccctt  
 1560  
 ctcttgatg actttgcttt ctttaacaaaa gtctggatgg ttcgaagatc tgagggggcc  
 1620  
 gagtccagc catcactgtc ggccgcactc tctcctcgca atggagagct ggagccagag  
 1680  
 gctggccagt cactttcctc tttgctaggg ggaatgtaac cagcatatgc caaaacaaaa  
 1740  
 ctgcagaatt tgttgaaatc ctcaattggt ctcgcgctt tctctggtgg ctgagtctct  
 1800  
 ggcttaaggg tcggaggtgg atcttcggga ctgggctccg ccatggcttc cagcatcgcc  
 1860  
 cctccccc ctcgggtcc ggccgcccc tcccggagc cggggatccc ggtgccgct  
 1920  
 ctagtgtcg atgtccac tgcttcgtc cacagaagtg tccgctcag cccggttgag  
 1980  
 actcgagtcc gctagcgcgt gccgccacct cctctacca ctgctcccg cactcccgga  
 2040  
 ccgggcccc tcccccg g  
 2061

&lt;210&gt; 5240

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5240

Met	Met	Ser	Ser	Ser	Met	Thr	Arg	Ile	Ser	Pro	Ser	Leu	Glu	Leu	Ala
1				5					10					15	
Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40					45			
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
	50					55				60					
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65				70					75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
			85					90					95		
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
		100					105					110			
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
	115					120					125				
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
	130					135				140					
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145				150				155						160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
			165					170					175		
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
	180						185					190			
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

195                      200                      205  
 Ala Cys Arg Arg Glu Lys Val Asp Leu Gly Gly Pro Gly Trp Val Gly  
      210                      215                      220  
 Pro Ala  
 225

<210> 5241  
 <211> 461  
 <212> DNA  
 <213> Homo sapiens

<400> 5241  
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 ccctcaatat gccgggggtg taccatttcc caagggatga cagcagggcc ccacagcgag  
 120  
 cccaggtg atccggagcc ctcttcatcc ccgtccaggg ccgtttgcac tgctcccggc  
 180  
 atcggcacac cttgttctgg ttgtgctggg acggcagcgc cccgtgaggt cagaggggtg  
 240  
 ctgtcacatc tgccaccag tgtggtctcc tggagatttc agtggttcgg tgcttcgctt  
 300  
 ctcacctggc cagctctgag ttcagcctct cgctgtggg gacccctgca tcttggcggc  
 360  
 agaaggagga ggaagaagcc accagaggtt gccaggaacc cagtggcagg ggaggtgggg  
 420  
 ctgagccagg cccgcccgct gtgccgggag tccccacgcg g  
 461

<210> 5242  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 5242  
 Met Asp Ala Phe Ile Thr Phe Val Pro Leu Arg Ala Ser Pro Ser Ile  
   1                      5                      10                      15  
 Cys Arg Gly Cys Thr His Phe Gln Gly Met Thr Ala Gly Pro His Ser  
                     20                      25                      30  
 Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val  
                     35                      40                      45  
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr  
                     50                      55                      60  
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser  
 65                      70                      75                      80  
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp  
                     85                      90                      95  
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly  
                     100                      105                      110  
 Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val  
                     115                      120                      125  
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe  
                     130                      135                      140  
 Pro Arg

145

&lt;210&gt; 5243

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5243

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ngaattcctt gcattctctt ctgggccaaa agaataatga ttaaatttaa gaatcaaacc
60
tggctggacc ttacagacga gccatttggc cagaaggtaa ctgtggaccc tgacaactca
120
aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaaccccaga
180
agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttggttt
240
agtttgcgcc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact
300
ggcgtatatg ctccctctgg ttactcctac cgctgccaac gcgt
344

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&lt;210&gt; 5244

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5244

Xaa	Ile	Pro	Cys	Ile	Leu	Phe	Trp	Ala	Lys	Arg	Ile	Met	Ile	Lys	Phe
1				5					10					15	
Lys	Asn	Gln	Thr	Trp	Leu	Asp	Leu	Thr	Asp	Glu	Pro	Phe	Gly	Gln	Lys
			20					25					30		
Val	Thr	Val	Asp	Pro	Asp	Asn	Ser	Asn	Cys	Ser	Glu	Glu	Ser	Ala	Arg
			35				40					45			
Leu	Ser	Leu	Lys	Leu	Gly	Asp	Ala	Gly	Asn	Pro	Arg	Ser	Leu	Ala	Ile
	50					55				60					
Arg	Phe	Ile	Leu	Thr	Asn	Tyr	Asn	Lys	Leu	Ser	Ile	Gln	Ser	Trp	Phe
65					70				75					80	
Ser	Leu	Arg	Arg	Val	Glu	Ile	Ile	Ser	Asn	Asn	Ser	Ile	Gln	Ala	Val
			85					90					95		
Phe	Asn	Pro	Thr	Gly	Val	Tyr	Ala	Pro	Ser	Gly	Tyr	Ser	Tyr	Arg	Cys
			100					105					110		
Gln	Arg														

&lt;210&gt; 5245

&lt;211&gt; 483

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5245

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nngccatgga aacgaaagcg gccaaagtaga gctccgtcct gacgcgccgc ctcccgtagg
60
ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg
120

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ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat  
 240  
 gctcatggag tggatgacgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag  
 300  
 atgtggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt  
 360  
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg  
 420  
 aacaagctga agctggtgca ctcaaacctg gaagatgacc ctgaggagat ccggatggaa  
 480  
 ttc  
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
		35					40					45			
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
	50					55					60				
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65					70					75				80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
				85					90					95	
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
			100					105					110		
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
		115					120					125			
Met	Glu	Phe													
		130													

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg  
 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgaggatc ctagaatttg agaaccgcga tgttaccagc  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtgggtggcga tgctaagttt  
300  
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
360  
gacatcccaa gccaccggaa ggaaatggag atgtgggtatt cctgctttgt ccaacagccg  
420  
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
480  
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctgggtgca ctcaaacctg  
540  
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac  
600  
tccatgtctg agagcagaga caggaggag atgtcaatta tgacctagcc agccttcacc  
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720  
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa  
780  
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840  
gaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa  
900  
tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
960  
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1004

<210> 5248

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35				40						45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
		50				55					60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70					75				80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
			85					90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
		115					120						125		
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
		130					135					140			
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145					150					155				160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

[illegible]

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<210> 5250
<211> 217
<212> PRT
<213> Homo sapiens
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<400> 5250															
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1				5					10					15	
Pro	Val	Lys	Ser	Tyr	Arg	Gly	Trp	Leu	Val	Met	Gly	Glu	Pro	Ser	Arg
			20					25					30		
Glu	Glu	Tyr	Lys	Ile	Gln	Ser	Phe	Asp	Ala	Glu	Thr	Gln	Gln	Leu	Leu
		35					40					45			
Lys	Thr	Ala	Leu	Lys	Asp	Pro	Gly	Ala	Val	Asp	Leu	Glu	Lys	Val	Ala
	50					55					60				
Asn	Val	Ile	Val	Asp	His	Ser	Leu	Gln	Asp	Cys	Val	Phe	Ser	Lys	Glu
65					70					75					80
Ala	Gly	Arg	Met	Cys	Tyr	Ala	Ile	Ile	Gln	Ala	Glu	Ser	Lys	Gln	Ala
				85					90					95	
Gly	Gln	Ser	Val	Phe	Arg	Arg	Gly	Leu	Leu	Asn	Arg	Leu	Gln	Gln	Glu
			100					105					110		
Tyr	Gln	Ala	Arg	Glu	Gln	Leu	Arg	Ala	Arg	Ser	Leu	Gln	Gly	Trp	Val

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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<400> 5251
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120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacagcc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
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<210> 5252  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 5252
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Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110  
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln  
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<210> 5253  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

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 120  
 tcattctcaat gccatccttg tggagagcca cagtgtagtg caagggtcca tccaattcac  
 180  
 tgtggacaag gtcttggagc aacatcacca ggctgccaag gctcagcaga aactacaggc  
 240  
 ctcactctca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag  
 300  
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa  
 360  
 actgcacaaa gtatttctgt agatcaccca acaccaattt cttcaccact gctcatgtga  
 420  
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 480  
 tgataacagc agcctggagc tcttagcaga taccagcggg caagcagaaa acaagaggct  
 540  
 caagaggggc agcccccgca tagaggagat gcgagctctg cgctctgcca gggccccgag  
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 720  
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 780  
 cagccctggg ccttgagccg ggtccccctc cgcaagcgcc caccgatccg gaggctgcgg  
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 898

<210> 5254  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 5254  
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 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala  
 20 25 30  
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly  
 35 40 45  
 Ser His Arg Gly Pro Pro His Ser



50

55

&lt;210&gt; 5255

&lt;211&gt; 1410

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5255

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60  
caaccccgaga tccccatgcc tcgagccctg gatctccaag ctcagctgct ggattctgga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tactggatc ccagatcccc tactccacc cactggattc ctgcattggt ttttggtttt  
240  
ttgttttttt ttaacctcga cactgggtct cagatccttc tgctgactgc cagatccctg  
300  
catttcaagc actacgcctt ccacccccag gcactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc  
420  
tggaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccctc  
480  
aatgttgaaa cctcatctct tgaaggcaga tctgatatt ccaaggcact gaatcccaag  
540  
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600  
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840  
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960  
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1080  
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1140  
ctaccagaga gaggagcaaa gtcctcctcc cctgcgccct tacattctgc acttcatagt  
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1320  
cccacctccc tgctgtgtg tgttatttca aaggaaaaga acaaaaggaa taaattttct  
1380

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1410

<210> 5256

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5256

Met	Val	Glu	Gly	Val	Cys	Gly	Glu	Gly	Ser	Pro	Gly	Pro	Gly	Cys	Asn
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Leu	His	Gly	Cys	Trp	Ile	Pro	Pro	His	Pro	Thr	Ser	Ala	Trp	Pro	Pro
			20					25					30		
Pro	Pro	Ser	Pro	Val	Gly	Lys	Leu	Phe	Pro	Gly	Thr	Thr	Pro	Leu	Pro
		35				40						45			
Ala	Ser	Pro	His	Phe	Thr	Ala	Ser	Ser	Ile	Pro	Leu	Pro	Pro	Ser	Arg
	50					55					60				
Arg	Ile	Val	Pro	Arg	Ala	Val	Phe	Leu	Gln	Gly	Val	Arg	Gly	Ile	Thr
65				70					75					80	
His	Ser	Trp	Arg	Leu	Ala	Arg	Arg	Gln	Ser	Glu	Ala	Arg	Asp	Thr	
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<210> 5257

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 5257

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120  
tcctcctact ccgcatccgc cgagcctgcc cgggtccgcg gccttgctta tgggcaccac  
180  
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240  
gatgtccgtg tgaagatgct ggcgggccct atcaatccat ctgacataaa tatgatccaa  
300  
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360  
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420  
aatgctgggt tagactcagg aacctggcgg accgaggctg tgttcagcga ggaagcactg  
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540  
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720  
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780

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 960  
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 1020  
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 1080  
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 1200  
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 1260  
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 1366

&lt;210&gt; 5258

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5258

Met	Trp	Val	Cys	Ser	Thr	Leu	Trp	Arg	Val	Arg	Thr	Pro	Pro	Gly	Ser
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Gly	Gly	Gly	Leu	Leu	Pro	Ala	Ser	Gly	Cys	His	Gly	Pro	Ala	Ala	Ser
			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35				40						45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
		50				55				60					
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65				70				75					80		
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
			85					90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
			100					105					110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
		115				120						125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
		130				135				140					
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145				150				155					160		
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
			165					170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
		180						185					190		
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
		195				200						205			
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210		215		220											
Lys	Leu	Ser	Asp	Arg	Leu	Lys	Ser	Leu	Gly	Ala	Glu	His	Val	Ile	Thr
225					230					235					240
Glu	Glu	Glu	Leu	Arg	Arg	Pro	Glu	Met	Lys	Asn	Phe	Phe	Lys	Asp	Met
				245						250					255
Pro	Gln	Pro	Arg	Leu	Ala	Leu	Asn	Cys	Val	Gly	Gly	Lys	Ser	Ser	Thr
			260					265					270		
Glu	Leu	Leu	Arg	Gln	Leu	Ala	Arg	Gly	Gly	Thr	Met	Val	Thr	Tyr	Gly
		275					280					285			
Gly	Met	Ala	Lys	Gln	Pro	Val	Val	Ala	Ser	Val	Ser	Leu	Leu	Ile	Phe
	290					295					300				
Lys	Asp	Leu	Lys	Leu	Arg	Gly	Phe	Trp	Leu	Ser	Gln	Trp	Lys	Lys	Asp
305				310					315						320
His	Ser	Pro	Asp	Gln	Phe	Lys	Glu	Leu	Ile	Leu	Thr	Leu	Cys	Asp	Leu
			325					330						335	
Ile	Arg	Arg	Gly	Gln	Leu	Thr	Ala	Pro	Ala	Cys	Ser	Gln	Val	Pro	Leu
		340					345					350			
Gln	Asp	Tyr	Gln	Ser	Ala	Leu	Glu	Ala	Ser	Met	Lys	Pro	Phe	Ile	Ser
	355					360						365			
Ser	Lys	Gln	Ile	Leu	Thr	Met									
	370				375										

&lt;210&gt; 5259

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5259

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120  
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180  
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa  
240  
aacctctctg agattttcac agacaaccag attttattaa agatgatctc acacatgaca  
300  
agttta  
306

&lt;210&gt; 5260

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5260

Met	Thr	Glu	Glu	Lys	Thr	Leu	Thr	Ala	Glu	Gly	Leu	Val	Lys	Leu	Leu
1				5					10					15	
Gln	Ala	Val	Lys	Thr	Thr	Phe	Pro	Asn	Leu	Gly	Leu	Leu	Leu	Glu	Lys
			20				25						30		
Leu	Gln	Lys	Ser	Ala	Thr	Leu	Pro	Ser	Thr	Thr	Val	Gln	Pro	Ser	Pro
	35					40					45				
Asp	Asp	Tyr	Gly	Thr	Glu	Leu	Leu	Arg	Arg	Tyr	His	Glu	Asn	Leu	Ser

50	55	60
Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met		
65	70	75
Thr Ser Leu		80

<210> 5261  
 <211> 2394  
 <212> DNA  
 <213> Homo sapiens

<400> 5261  
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 120  
 atctgtttcc agggagacga gggcgccctgc ccgaccggg acttcgtggt aggagcgctt  
 180  
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 300  
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 360  
 aagtccagct tgaagacgct cttcatcctc ttccggaacg agacggtgga cgtggaggac  
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 480  
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 720  
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 1140  
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 1200  
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 1260

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 1860  
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 1920  
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 1980  
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 2040  
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 2160  
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 2220  
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 2280  
 tggcttagaa tgtaaaattg attgttaaaa gttttgttct gaataaatat ttatcttttg  
 2340  
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 2394

<210> 5262

<211> 275

<212> PRT

<213> Homo sapiens

<400> 5262

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Ala	Glu	Arg	Pro	Leu	Gln	Asp	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Gly	Pro
			20					25					30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
		35					40					45			
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
	50						55					60			

Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly  
 70 75 80  
 Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu  
 85 90 95  
 Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu  
 100 105 110  
 Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe  
 115 120 125  
 Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp  
 130 135 140  
 Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp  
 145 150 155 160  
 Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg  
 165 170 175  
 Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly  
 180 185 190  
 Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe  
 195 200 205  
 Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg  
 210 215 220  
 Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys  
 225 230 235 240  
 Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln  
 245 250 255  
 Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val  
 260 265 270  
 Ala Gly His  
 275

<210> 5263  
 <211> 319  
 <212> DNA  
 <213> Homo sapiens

<400> 5263  
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 120  
 gaagtagata cacattatatt tctgacaggg gggaagtatc agaagaaagc atgttggttg  
 180  
 tgccttgga aatctttttt ggttgatatt gaaatgccat ttcaccagtt tcaagccttc  
 240  
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 300  
 atttattaaa tccatggct  
 319

<210> 5264  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 5264

Met	Asp	Leu	Ile	Asn	Arg	Ala	Thr	Met	Ser	Glu	Trp	Lys	Leu	Gln	Ser
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Lys	Ile	Gln	Ile	Ser	His	Ser	Trp	Glu	Glu	Gly	Leu	Lys	Leu	Val	Lys
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Trp	His	Phe	Asn	Ile	Asn	Gln	Lys	Arg	Phe	Ser	Lys	Ala	Gln	Pro	Thr
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Cys	Phe	Leu	Leu	Ile	Leu	Pro	Pro	Cys	Gln	Lys	Ile	Met	Cys	Ile	Tyr
	50					55					60				
Phe	Gln	Leu	Leu	Leu	Met	Glu	Thr	Thr	Ala	Met	Leu	Asp	Leu	Leu	Val
65					70					75					80
Ile	Arg	Gln	Leu	Lys	Ser	Ala	Leu	Ser	Gln	Thr	Leu	Leu	Cys	His	Leu
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&lt;210&gt; 5265

&lt;211&gt; 3203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5265

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&lt;210&gt; 5266

&lt;211&gt; 853

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5266

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		20						25					30		
Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
		35					40					45			
Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly	Pro
	50					55					60				
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Gly	Glu
65					70					75				80	
Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
			85					90					95		
Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Glu	Gly
			100				105						110		
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
		115				120						125			
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
	130					135					140				
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
145					150					155				160	
Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala
			165					170					175		
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
			180					185					190		
Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly	Gly

4437

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 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala  
                                  660                      665                      670  
 Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser  
                                  675                      680                      685  
 Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro  
                                  690                      695                      700  
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln  
 705                                   710                                   715                                   720  
 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile  
                                  725                                   730                                   735  
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr  
                                  740                                   745                                   750  
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn  
                                  755                                   760                                   765  
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu  
                                  770                                   775                                   780  
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile  
 785                                   790                                   795                                   800  
 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys  
                                  805                                   810                                   815  
 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val  
                                  820                                   825                                   830  
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 Tyr Glu Val Ser Ile  
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 <211> 885  
 <212> DNA  
 <213> Homo sapiens

<400> 5267  
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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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			20					25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
		35					40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55				60					
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65					70				75					80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85					90					95		
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
			100					105					110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
		115					120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
	130					135					140				
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
145					150					155				160	
Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
			165					170						175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
		180					185						190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
	195						200				205				
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
	210					215					220				
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225					230					235				240	
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
			245					250						255	
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
			260					265					270		
Gly	Asp	Gly	Tyr	Gly	Thr	Phe									

275

&lt;210&gt; 5269

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5269

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120  
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&lt;210&gt; 5270

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5270

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Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
          145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
          225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
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Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
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Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
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Glu Lys Phe Leu Lys Thr Leu
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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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 1185

&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

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Arg	Tyr	Ile	Lys	Pro	Val	Gln	Leu	Gln	Gln	Pro	Gln	Arg	Val	Ser	Leu
			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55					60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
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Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly



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<210> 5273
<211> 4580
<212> DNA
<213> Homo sapiens
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4443

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&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

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			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35					40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

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Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85					90					95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
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Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
			180					185							

&lt;210&gt; 5275

&lt;211&gt; 810

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5275

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&lt;210&gt; 5276

&lt;211&gt; 125

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5276

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 20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
 35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
 50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
 65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
 85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5278

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          20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
          35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
          50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
          85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
          100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
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&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

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<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35				40						45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
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65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
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Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
	115					120					125				
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
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Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
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85

90

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 <211> 1989  
 <212> DNA  
 <213> Homo sapiens

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 1920  
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 1980  
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 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

Met	Asp	Gly	Ile	Ile	Glu	Gln	Lys	Ser	Met	Leu	Val	His	Ser	Lys	Ile
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			20					25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
			35				40					45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
		50				55				60					
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85					90					95		
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105				110			
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115				120						125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu
145					150					155				160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180					185					190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215						220				
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225				230					235						240
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
			245					250						255	
His	Leu														

&lt;210&gt; 5285

&lt;211&gt; 2155

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5285

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240
gacgacatcc cgctaggccc tcagtccaac gtcagcctcc tggatcagca ccagcacctt
300
aaagagaagg ctgaagcgcg caaagagtct gccaaaggaga agcagctgaa ggaagaagag
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420
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1140

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 1920  
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 2155

&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

Xaa	Arg	Val	Gln	Gln	Arg	Met	Glu	Glu	Ser	Glu	Pro	Glu	Arg	Lys	Arg
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Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
		50				55				60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65				70					75				80		
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
			85					90					95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

100 105 110  
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu  
 115 120 125  
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr  
 130 135 140  
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser  
 145 150 155 160  
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu  
 165 170 175  
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met  
 180 185 190  
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His  
 195 200 205  
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly  
 210 215 220  
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val  
 225 230 235 240  
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu  
 245 250 255  
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser  
 260 265 270  
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg  
 275 280 285  
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile  
 290 295 300  
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val  
 305 310 315 320  
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys  
 325 330 335  
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala  
 340 345 350  
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe  
 355 360 365  
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met  
 370 375 380  
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val  
 385 390 395 400  
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln  
 405 410 415  
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu  
 420 425 430  
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys  
 435 440 445  
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu  
 450 455 460  
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala  
 465 470 475 480  
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp  
 485 490 495  
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn  
 500 505 510  
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg  
 515 520 525  
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

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      530              535              540
Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
545              550              555              560
Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
      565              570              575
Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
      580              585              590
Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
      595              600              605
Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
      610              615              620
Ser Met Asp Phe
625

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<210> 5287  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

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120
tcgggagcgg agttgcagaa tccaaggacc cattttgttc tttctccgca ctgctttatg
180
ggaggcatta tggcccccaa agacataatg acaaatactc atgctaaatc catcctcaat
240
tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag
300
aaagacttcc ctgcccatcg gattgtgctg gctgcctgta gtgattactt ctgtgccatg
360
ttcactagtg agctctcaga gaaggggaaa ccttatgttg acatccaagg tttgactgcc
420
tctaccatgg aaattttatt ggactttgtg tacacagaaa cggtacatgt gacagtggag
480
aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaagggtgt gaaacaagcc
540
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581

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<210> 5288  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

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<400> 5288
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1      5      10      15
Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
      20      25      30
Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
      35      40      45
Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

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      50              55              60
Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
65              70              75              80
Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
      85              90              95
Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
      100             105             110
Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
      115             120             125
Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
      130             135             140
Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
145             150             155             160
Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
      165             170             175
Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
      180             185             190
Arg

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<210> 5289  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<400> 5289  
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 agcactatgg gaagttatgc tcagctatta taggactatg gaatggcatg aaaagcatga  
 120  
 caatgaggat actgcttcag cttctgaagg ggaagtatat gatagggtcc tgaagaaact  
 180  
 tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca  
 240  
 ggatgttcag ctaaaagtaa aaacctactt gcttggaact gatttgtcta tattcaaata  
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 tgatgatttc atctttgttt tggatataat cagcaggttg atgcaagttg gagaagaatt  
 360  
 c  
 361

<210> 5290  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 5290  
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 1 5 10 15  
 Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu  
 20 25 30  
 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His  
 35 40 45  
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr



50	55	60
Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe		
65	70	75
Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe		80
	85	90
		95

<210> 5291  
 <211> 767  
 <212> DNA  
 <213> Homo sapiens

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 aagatggcca cgcagaagac tcccagcagg gcgtacatgc ccagctctag ctcaagtaca  
 120  
 tgctgagggg cagggaccat ctctctctcc tcttctctct cctccctggc tttggctctc  
 180  
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 240  
 acactgcctg ccacctgccg tttaccaccc atggtggctt ctgtggctgg tgggctccaa  
 300  
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 360  
 ggtgccagag gccaaaggca cacggtggcg gccccggcgn gcagggctcg ggcgggtgca  
 420  
 gagccacatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg  
 480  
 caccctgctc ctcaagtggc aggatggcac caggctctct ggctgaaacg gacagtccca  
 540  
 gtcaggcggt cgtagagctc agctgggcca cagtgtgatc agagaaggac agccataggg  
 600  
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 660  
 atgcacagag aaaccactcc cacagagaca ggccacatgg aggagagacc agagagaaaa  
 720  
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 767

<210> 5292  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<400> 5292  
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 1 5 10 15  
 Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu  
 20 25 30  
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro  
 35 40 45  
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu  
 50 55 60  
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90				95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His
			100					105				110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
		115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser	
	130					135					140			

<210> 5293  
 <211> 1428  
 <212> DNA  
 <213> Homo sapiens

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 180  
 ccgcggggcta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc  
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 360  
 agccagttcc tgctgcaggc gcctgggagt accgagctgg aggagctcac ggtgcagggtg  
 420  
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 660  
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 720  
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 960  
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 1080  
 gagctcaaga gattggaaga aaatgatgat gatgcctatt taaactcacc atgggcggat  
 1140

aacactgctt tgaaaagaca ttttcatgga gtgaaagaca taaagtggag accaagatga  
 1200  
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 1260  
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 1320  
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 1380  
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<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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Gln	Ala	Pro	Gly	Ser	Thr	Glu	Leu	Glu	Glu	Leu	Thr	Val	Gln	Val	Ala
			20					25					30		
Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met
		35					40					45			
Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly
	50					55				60					
Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly
65					70				75					80	
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile
			85					90					95		
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu
			100					105					110		
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val
		115				120						125			
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp
	130					135				140					
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro
145					150				155					160	
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly
			165					170					175		
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp
		180						185					190		
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val
	195						200					205			
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly
	210					215					220				
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys
225					230					235				240	
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu
			245					250					255		
Glu	Glu	Asn	Asp	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn
		260						265					270		
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg
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Pro	Arg														

290

<210> 5295  
<211> 1451  
<212> DNA  
<213> Homo sapiens

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120  
gacagtaacg agcagtgtctg gccgggcccc actttcagag ggggcggaag ggcatcttga  
180  
cacgtgtcat atggtaagag ggcgcatccac tcaccaggc ctggtgcagg actctgcaag  
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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

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4474



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Tyr	Ser	Gly	Ala	Thr	Cys	His	Asn	Ser	Ile	Tyr	Glu	Pro	Ser	Cys	Glu		
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Asn	Thr	Pro	Asp	Gly	Ser	Pro	Tyr	Thr	Trp	Trp	Val	Gly	Lys	Ala	Asn		
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	980	985	990		
His	Gly Tyr Ser Cys Asp	Cys Ser Asn Thr Ala	Tyr Asp Gly Thr Phe		
	995	1000	1005		
Cys	Asn Lys Asp Val Gly	Ala Phe Phe Glu Glu	Gly Met Trp Leu Arg		
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Val	Asp Asn Ala Pro Asp	Gln Gln Asn Ser His	Pro Asp Leu Ala Gln		
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Pro	Thr Gly Ser Leu Gln	Ile Arg Tyr Asn Leu	Gly Gly Thr Arg Glu		
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His	Ser Val Asn Ile Thr	Arg His Glu Lys Thr	Ile Phe Leu Lys Leu		
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Asp	His Tyr Pro Ser Val	Ser Tyr His Leu Pro	Ser Ser Ser Asp Thr		
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Gly	Lys Ile Asp Gln Glu	Ile His Lys Tyr Asn	Thr Pro Gly Phe Thr		
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Gly	Cys Leu Ser Arg Val	Gln Phe Asn Gln Ile	Ala Pro Leu Lys Ala		
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Ser	Ser Ala Thr Asp Pro	Trp His Leu Asp His	Leu Asp Ser Ala Ser		
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Ala	Asp Phe Pro Tyr Asn	Pro Gly Gln Gly Gln	Ala Ile Arg Asn Gly		
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Val	Asn Arg Asn Ser Ala	Ile Ile Gly Gly Val	Ile Ala Val Val Ile		
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Phe	Thr Ile Leu Cys Thr	Leu Val Phe Leu Ile	Arg Tyr Met Phe Arg		
	1285	1290	1295		
His	Lys Gly Thr Tyr His	Thr Asn Glu Ala Lys	Gly Ala Glu Ser Ala		
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 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala  
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 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr  
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 <212> DNA  
 <213> Homo sapiens

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<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

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			20					25					30		
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		35					40					45			
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<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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&lt;210&gt; 5308

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5308

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			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
			35				40					45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
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Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65				70				75					80		
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
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&lt;210&gt; 5309

&lt;211&gt; 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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1500
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 2078

&lt;210&gt; 5310

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5310

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			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
			35				40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
			50			55				60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
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Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
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Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
			130			135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
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Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180				185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
			195				200					205			
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210	215	220
Val Asp Gly Gln Leu Thr	Ser Pro Ala Thr	Pro Ser Pro Asp Ala Ser
225	230	235
Thr Ser Leu Glu Asp Ser	Phe Ala His Leu Gln Leu Ser	Gly Asp Asn
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Thr Ala Glu Arg Ser His	Arg Gly Glu Gly Glu Asp	His Glu Ser
260	265	270
Pro Ser Ser Gly Arg Val	Pro Ala Pro Asp Thr	Ser Ile Glu Glu Thr
275	280	285
Glu Ser Asp Ala Ser Ser	Asp Ser Glu Asp Val	Ser Ala Val Val Ala
290	295	300
Gln His Ser Leu Thr Gln	Gln Arg Leu Leu Val	Ser Asn Ala Asn Gln
305	310	315
Thr Val Pro Asp Arg Ser	Asp Arg Ser Gly Thr	Asp Arg Ser Val Ala
325	330	335
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 <211> 572  
 <212> DNA  
 <213> Homo sapiens

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 480  
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<210> 5312  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 5312  
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Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe			
	35	40	45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln			
	50	55	60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His			
65	70	75	80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp			
	85	90	95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu			
	100	105	110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg			
	115	120	125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp			
	130	135	140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro			
145	150	155	160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro			
	165	170	175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp			
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&lt;210&gt; 5313

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5313

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 180  
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 300  
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 322

&lt;210&gt; 5314

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5314

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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly			
	20	25	30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser			

	35		40		45										
Glu	Lys	Pro	Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro
	50					55					60				
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His	Met
65					70					75				80	
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His
				85					90					95	
Thr	Tyr	Ser	Leu	Thr	His	Ile	His	Val	His	Thr					
			100					105							

&lt;210&gt; 5315

&lt;211&gt; 2298

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5315

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1140

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&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
			35				40					45			
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

	50				55				60						
Arg 65	Leu	Gln	Phe	Lys	Val 70	Val	Asp	Leu	Glu	Gln 75	Thr	Asn	Leu	Asp	Glu 80
Asp	Gly	Ala	Ser	Ala 85	Leu	Phe	Asp	Met	Ile 90	Glu	Tyr	Tyr	Glu	Ser	Ala 95
Thr	His	Leu	Asn 100	Ile	Ser	Phe	Asn	Lys 105	His	Ile	Gly	Thr	Arg 110	Gly	Trp
Gln	Ala	Ala 115	Ala	His	Met	Met	Arg	Lys 120	Thr	Ser	Cys	Leu	Gln 125	Tyr	Leu
Asp	Ala 130	Arg	Asn	Thr	Pro	Leu	Leu	Asp 135	His	Ser	Ala 140	Pro	Phe	Val	Ala
Arg 145	Ala	Leu	Arg	Ile	Arg	Ser	Ser	Leu	Ala	Val	Leu	His	Leu	Glu	Asn 160
Ala	Ser	Leu	Ser	Gly 165	Arg	Pro	Leu	Met	Leu	Leu	Ala	Thr	Ala	Leu	Lys 175
Met	Asn	Met	Asn 180	Leu	Arg	Glu	Leu	Tyr	Leu	Ala	Asp	Asn	Lys 190	Leu	Asn
Gly	Leu	Gln	Asp 195	Ser	Ala	Gln	Leu	Gly	Asn	Leu	Leu	Lys 205	Phe	Asn	Cys
Ser	Leu 210	Gln	Ile	Leu	Asp	Leu	Arg	Asn 215	Asn	His	Val	Leu	Asp	Ser	Gly
Leu 225	Ala	Tyr	Ile	Cys	Glu	Gly	Leu	Lys	Glu	Gln	Arg	Lys	Gly	Leu	Val 240
Thr	Leu	Val	Leu	Trp 245	Asn	Asn	Gln	Leu	Thr	His	Thr	Gly	Met	Ala	Phe 255
Leu	Gly	Met	Thr 260	Leu	Ser	His	Thr	Gln 265	Ser	Leu	Glu	Thr	Leu	Asn	Leu
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Leu 305	Thr	Cys	Glu	Gly	Ala	Val	Ala	Val	Ala	Glu	Phe	Ile	Ala	Glu	Ser 320
Pro	Arg	Leu	Leu	Arg 325	Leu	Asp	Leu	Arg	Glu	Asn	Glu	Ile	Lys	Thr	Gly 335
Gly	Leu	Met	Ala 340	Leu	Ser	Leu	Ala	Leu 345	Lys	Val	Asn	His	Ser	Leu	Leu
Arg	Leu	Asp 355	Leu	Asp	Arg	Glu	Pro	Lys 360	Lys	Glu	Ala	Val	Lys	Ser	Phe
Ile	Glu 370	Thr	Gln	Lys	Ala	Leu	Leu	Ala 375	Glu	Ile	Gln	Asn	Gly	Cys	Lys
Arg 385	Asn	Leu	Val	Leu	Ala	Arg	Glu	Arg	Glu	Glu	Lys	Glu	Gln	Pro	Pro 400
Gln	Leu	Ser	Ala	Ser 405	Met	Pro	Glu	Thr	Thr	Ala	Thr	Glu	Pro	Gln	Pro 415
Asp	Asp	Glu	Pro 420	Ala	Ala	Gly	Val	Gln 425	Asn	Gly	Ala	Pro	Ser	Pro	Ala
Pro	Ser	Pro 435	Asp	Ser	Asp	Ser	Asp	Ser 440	Asp	Ser	Asp	Gly	Glu	Glu	Glu
Glu	Glu 450	Glu	Glu	Gly	Glu	Arg	Asp	Glu	Thr	Pro	Ser	Gly	Ala	Ile	Asp
Thr 465	Arg	Asp	Thr	Gly	Ser	Ser	Glu	Pro	Gln	Pro	Pro	Pro	Glu	Pro	Pro 480
Arg	Ser	Gly	Pro	Pro	Leu	Pro	Asn	Gly	Leu	Lys	Pro	Glu	Phe	Ala	Leu

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Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser	
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Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu	
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&lt;210&gt; 5317

&lt;211&gt; 889

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5317

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&lt;210&gt; 5318

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5318

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			20						25						30		
Pro	Thr	Ser	Pro	Thr	Ser	Ala	Ala	Ser	Arg	Ala	Cys	Gly	Ser	Arg	Gly		
35						40						45					
Ala	Ala	Thr	Trp	Trp	Ser	Arg	Ser	Ser	Gly	Ser	Thr	Thr	Leu	Arg	Arg		
50						55						60					
Pro	Ser	Trp	Ala	Ser	Ser	Ser	Thr	Arg	Ala	Ser	Thr	Gly	Thr	Arg	Ser		
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Pro	Ala	Ala	Ala	Ser	Arg	Arg	Pro	Cys	Gly	Ser	Pro	Ala	Arg	Gly	Arg		
			85						90			95					
Thr	Ser	Trp	Ser	Ala	Arg	Tyr	Thr	Ser	Pro	Arg	Met	Trp	Thr	Lys	Met		
100						105						110					
Thr	Cys	Arg	Arg	Cys	Arg	Thr	Ser	Ala	Trp	Trp	Trp	Ala	Trp	Ser	Ser		
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130																	

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<211> 4231
<212> DNA
<213> Homo sapiens
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960

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 660  
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 780  
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&lt;210&gt; 5326

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5326

Met Trp Cys Leu Leu Arg Gly Leu Gly Arg Pro Gly Ala Leu Ala Arg  
 1 5 10 15  
 Gly Ala Leu Gly Gln Gln Gln Ser Leu Gly Ala Arg Ala Leu Ala Ser  
 20 25 30  
 Ala Gly Ser Glu Ser Arg Asp Glu Tyr Ser Tyr Val Val Val Gly Ala  
 35 40 45  
 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala  
 50 55 60  
 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly  
 65 70 75 80  
 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala  
 85 90 95  
 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

	100		105		110										
Arg	Gly	Leu	Asp	Gly	Arg	Val	Leu	Tyr	Trp	Pro	Arg	Gly	Arg	Val	Trp
	115						120				125				
Gly	Gly	Ser	Ser	Ser	Leu	Asn	Ala	Met	Val	Tyr	Val	Arg	Gly	His	Ala
	130					135					140				
Glu	Asp	Tyr	Glu	Arg	Trp	Gln	Arg	Gln	Gly	Ala	Arg	Gly	Trp	Asp	Tyr
145					150					155				160	
Ala	His	Cys	Leu	Pro	Tyr	Phe	Arg	Lys	Ala	Gln	Gly	His	Xaa	Ala	Gly
			165						170				175		
Arg	Gln	Pro	Val	Pro	Gly	Arg	Asp	Gly	Pro	Leu	Arg	Val	Ser	Arg	Gly
	180							185				190			
Lys	Thr	Asn	His	Pro	Leu	His	Cys	Ala	Phe	Leu	Glu	Ala	Thr	Gln	Gln
	195						200					205			
Ala	Gly	Tyr	Pro	Leu	Thr	Glu	Asp	Met	Asn	Gly	Phe	Gln	Gln	Glu	Gly
	210					215					220				
Phe	Gly	Trp	Met	Asp	Met	Thr	Ile	His	Glu						
225					230										

&lt;210&gt; 5327

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5327

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 1980  
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&lt;210&gt; 5328

&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

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			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35					40				45				
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

50	55	60
Ala Thr Glu Asp Val Arg His Tyr Phe Pro Glu Leu Leu Asp Phe Asn		
65	70	75
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly		80
	85	90
Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr		95
	100	105
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
	115	120
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly		125
	130	135
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr		140
145	150	155
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr		160
	165	170
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp		175
	180	185
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu		190
	195	200
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val		205
	210	215
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly		220
225	230	235
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln		240
	245	250
Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys		255
	260	265
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys		270
	275	280
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly		285
	290	295
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu		300
305	310	315
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser		320
	325	330
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe		335
	340	345
Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys		350
	355	360
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln		365
	370	375
Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg		380
385	390	395
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala		400
	405	410
Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu		415
	420	425
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn		430
	435	440
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr		445
	450	455
Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser		460
465	470	475
Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His		480

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<210> 5329
<211> 2582
<212> DNA
<213> Homo sapiens
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120
tgggcagagg tctgcgagaa attccaggcg gcgctcgctc tgtcgcgggt ggaactgcat
180
aaaaatccgg agaaggaacc atacaagtcc aaatacagcg cccgggcgct actggaagag
240
gtcaaggcgc tgctcgggcc tgcgcctgag gacgaggatg agcggcctga ggccgaggac
300
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360
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420
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480
cgcaggtacc ggctctcgca cgactgcac tctctctgca tccaggcgca gaataacctg
540
ggtatcttgt ggtctgaaag agaagaaatt gaaactgcac aggcttacct agagtcatca
600
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720  
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780  
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840  
cctatagagt gggctatcaa tgctgctacc ttgtcacagt ttacatcaa taagctatgc  
900  
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960  
atctcagcca cagaagacac tcctgaagct gaaggagaag tgccagagct ttatcatcaa  
1020  
agaaaggggg aaatagcaag gtgctggatc aaatactgtt tgactctcat gcagaatgcc  
1080  
caactctcca tgcaggacia cataggagag cttgatcttg ataaacagtc tgaacttaga  
1140  
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1380  
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1620  
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1800  
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1860  
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1920  
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1980  
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2100  
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2160  
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2220

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 2580  
 aa  
 2582

<210> 5330

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5330

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		20						25					30		
Ala	Leu	Arg	Lys	Lys	Glu	Leu	Asp	Glu	Glu	Glu	Ser	Ile	Arg	Lys	Lys
		35					40					45			
Ala	Val	Gln	Phe	Gly	Thr	Gly	Glu	Leu	Cys	Asp	Ala	Ile	Ser	Ala	Val
	50					55					60				
Glu	Glu	Lys	Val	Ser	Tyr	Leu	Arg	Pro	Leu	Asp	Phe	Glu	Glu	Ala	Arg
65					70					75					80
Glu	Leu	Phe	Leu	Leu	Gly	Gln	His	Tyr	Val	Phe	Glu	Ala	Lys	Glu	Phe
			85						90					95	
Phe	Gln	Ile	Asp	Gly	Tyr	Val	Thr	Asp	His	Ile	Glu	Val	Val	Gln	Asp
			100					105					110		
His	Ser	Ala	Leu	Phe	Lys	Val	Leu	Ala	Phe	Phe	Glu	Thr	Asp	Met	Glu
		115					120					125			
Arg	Arg	Cys	Lys	Met	His	Lys	Arg	Arg	Ile	Ala	Met	Leu	Glu	Pro	Leu
		130				135					140				
Thr	Val	Asp	Leu	Asn	Pro	Gln	Tyr	Tyr	Leu	Leu	Val	Asn	Arg	Gln	Ile
145					150					155					160
Gln	Phe	Glu	Ile	Ala	His	Ala	Tyr	Tyr	Asp	Met	Met	Asp	Leu	Lys	Val
			165						170					175	
Ala	Ile	Ala	Asp	Arg	Leu	Arg	Asp	Pro	Asp	Ser	His	Ile	Val	Lys	Lys
			180					185					190		
Ile	Asn	Asn	Leu	Asn	Lys	Ser	Ala	Leu	Lys	Tyr	Tyr	Gln	Leu	Phe	Leu
		195					200					205			
Asp	Ser	Leu	Arg	Asp	Pro	Asn	Lys	Val	Phe	Pro	Glu	His	Ile	Gly	Glu
		210				215					220				
Asp	Val	Leu	Arg	Pro	Ala	Met	Leu	Ala	Lys	Phe	Arg	Val	Ala	Arg	Leu
225					230					235					240
Tyr	Gly	Lys	Ile	Ile	Thr	Ala	Asp	Pro	Lys	Lys	Glu	Leu	Glu	Asn	Leu
			245						250					255	
Ala	Thr	Ser	Leu	Glu	His	Tyr	Lys	Phe	Ile	Val	Asp	Tyr	Cys	Glu	Lys

	260		265		270										
His	Pro	Glu	Ala	Ala	Gln	Glu	Ile	Glu	Val	Glu	Leu	Glu	Leu	Ser	Lys
	275		280		285										
Glu	Met	Val	Ser	Leu	Leu	Pro	Thr	Lys	Met	Glu	Arg	Phe	Arg	Thr	Lys
	290		295		300										
Met	Ala	Leu	Thr												
305															

&lt;210&gt; 5331

&lt;211&gt; 1069

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5331

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1069

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&lt;210&gt; 5332

&lt;211&gt; 61

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5332

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		20						25				30			
Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
	35						40					45			
Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Xaa	Gly	Arg	Gly			
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<210> 5333

<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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120  
cggcgcnnngc gggagctgcg caagatccag gcgcggatgg gcgtgttcgc gcaggctgac  
180  
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240  
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300  
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<210> 5334

<211> 269

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5334

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 Asp Gln Gly Tyr Arg Val Asp Gly Arg Arg Xaa Arg Glu Leu Arg Lys  
 35 40 45  
 Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly Ser Ala Tyr  
 50 55 60  
 Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr Gly Pro His  
 65 70 75 80  
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val  
 85 90 95  
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg  
 100 105 110  
 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg  
 115 120 125  
 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln  
 130 135 140  
 Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly Thr Tyr Ala  
 145 150 155 160  
 Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro  
 165 170 175  
 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr  
 180 185 190  
 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln  
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&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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<211> 690

<212> PRT

<213> Homo sapiens

<400> 5342

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 Ala Met Leu Ala Arg Pro Trp Leu Gly Pro Trp Val Pro His Gly Leu  
 50 55 60  
 Ser Leu Ala Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu  
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 Pro Pro Gly Leu Arg Trp Leu Pro Ala Asp Val Ile Phe Leu Ala Lys  
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4517

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                          565                      570                      575  
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 Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp  
                          595                      600                      605  
 Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala  
                          610                      615                      620  
 Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr  
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 Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly  
                          645                      650                      655  
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                          660                      665                      670  
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<211> 752

<212> DNA

<213> Homo sapiens

<400> 5343

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 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
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&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

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Cys	Thr	Ala	Lys	Val	Gly	Lys	Ala	His	Val	Tyr	Cys	Glu	Gly	Asn	Asp

4521

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Ile	Leu	Asn	Pro	Asp	Gly	Tyr	Thr	Leu	Asn	Tyr	Asn	Glu	Tyr	Ile	Val		
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Asn	Phe	Leu	Gln	Leu	Trp												
	530																

&lt;210&gt; 5347&lt;211&gt; 2893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5347

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 <211> 694  
 <212> PRT  
 <213> Homo sapiens

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 Tyr Leu Leu Leu Pro Pro Pro Thr Leu Leu Gln Asp Glu Leu Leu Phe  
                   35                  40                  45  
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                   50                  55                  60  
 Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu  
 65                  70                  75                  80  
 Leu Asp Pro Ala Ala Pro Pro Glu Gly Gln Leu Leu Arg Glu Val Arg  
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 Ala Leu Gly Val Pro Phe Val Pro Arg Thr Ser Val Asp Ala Trp Leu  
                   100                  105                  110  
 Val His Ser Val Ala Ala Gly Ser Ala Asp Glu Ala His Gly Leu Leu  
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                   130                  135                  140  
 Gly Gly Ser Gln Ala Val Gln Gly Gly Cys Gly Asp Ser Arg Ala Ala  
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 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu  
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 Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn  
                   180                  185                  190  
 Gly Val Leu Arg Glu Lys His Glu Ala Val Asp His Ser Ser Gln His  
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 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln  
                   210                  215                  220  
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 Asp Thr Ser Phe Ser Leu Glu Asp Leu Phe Gln Leu Leu Ser Ser Gln  
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 Pro Glu Asn Ser Leu Glu Gly Ile Ser Leu Gly Asp Ile Pro Leu Pro  
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385          390          395          400
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
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Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
          420          425          430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
          435          440          445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
          450          455          460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
465          470          475          480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
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Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
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Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
          515          520          525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
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Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
545          550          555          560
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
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Asp Ile Arg Arg Arg Gly Lys Asn Lys Val Ala Ala
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Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
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Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
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Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr
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&lt;210&gt; 5349

&lt;211&gt; 425

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5349

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<211> 134

<212> PRT

<213> Homo sapiens

<400> 5350

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			20					25					30		
Leu	Gly	Lys	His	His	Thr	Ser	Arg	Glu	Pro	Gln	Ala	Gln	Pro	Lys	Pro
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His	Lys	Val	Ser	Ser	Gln	Glu	Gly	Glu	Gly	Arg	Ile	Pro	Leu	Pro	Gly
	50					55					60				
Lys	Ala	Glu	Val	Arg	Glu	Ala	Gly	Gln	Pro	Ile	Pro	Val	Ser	Leu	Leu
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<210> 5351

<211> 343

<212> DNA

<213> Homo sapiens

<400> 5351

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<210> 5352

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5352

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Gln	Asp	Ala	Leu	Ser	Lys	Ser	Leu	Gln	Gln	Asn	Leu	Pro	Ser	Arg	Ser
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Val	Ser	Lys	Pro	Ser	Leu	Phe	Ser	Ser	Val	Gln	Leu	Tyr	Arg	Gln	Ser
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Ser	Lys	Met	Cys	Gly	Thr	Val	Phe	Thr	Gly	Ala	Ser	Arg	Phe	Arg	Cys
				85				90					95		
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<210> 5353

<211> 4217<212> DNA

<213> Homo sapiens

<400> 5353

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<210> 5354

<211> 605

<212> PRT

<213> Homo sapiens

<400> 5354

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Ala	Glu	Leu	Gly	Met	Gly	Thr	Pro	Pro	Ala	Ser	Pro	Pro	Gln	Leu	Arg	165	170	175	
Gly	His	Ala	Asp	Val	Gln	Ile	Ser	Trp	Asn	Gln	Gly	Ile	Asp	Leu	Trp	180	185	190	
Trp	His	Glu	Leu	Met	Gln	Glu	Ala	Gly	Asp	Glu	Cys	Glu	Pro	Glu	Trp	195	200	205	
Cys	Asp	Ala	Glu	Asp	Pro	Leu	Phe	Ile	Leu	Tyr	Thr	Ser	Gly	Ser	Thr	210	215	220	
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Val	Ala	Thr	Thr	Phe	Lys	Tyr	Val	Phe	Asp	Phe	His	Ala	Glu	Asp	Val	245	250	255	
Phe	Trp	Cys	Thr	Ala	Asp	Ile	Gly	Trp	Ile	Thr	Gly	His	Ser	Tyr	Val	260	265	270	
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<210> 5355

<211> 1596

<212> DNA

<213> Homo sapiens

<400> 5355

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&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

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Cys Arg Phe His Ser Phe Lys Lys Val Leu Tyr Glu Met Gly Pro Glu
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&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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<212> PRT

<213> Homo sapiens

<400> 5358

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Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg					
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Gly Lys Met Ser Gln Tyr Leu Asp Ser Leu Lys Val Gly Asp Val Val					
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Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr Tyr Thr Gly Lys Gly His					
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Phe Asn Ile Gln Pro Asn Lys Lys Ser Pro Pro Glu Pro Arg Val Ala					
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&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5359

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&lt;210&gt; 5360



&lt;211&gt; 1406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5360

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His	Ser	Thr	Leu	Glu	Gln	Leu	Thr	Glu	Lys	Lys	Ile	Lys	His	Leu	Glu
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Gln	Gly	Tyr	Arg	Glu	Arg	Leu	Ser	Leu	Leu	Arg	Ser	Glu	Val	Glu	Ala
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Glu	Arg	Glu	Leu	Phe	Trp	Glu	Gln	Ala	His	Arg	Gln	Arg	Ala	Ala	Leu
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Glu	Trp	Asp	Val	Gly	Arg	Leu	Gln	Ala	Glu	Glu	Ala	Gly	Leu	Arg	Glu
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Lys	Leu	Thr	Leu	Ala	Leu	Lys	Glu	Asn	Ser	Arg	Leu	Gln	Lys	Glu	Ile
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4541

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Lys Ala Thr Glu Glu Arg Val Glu Glu Ala Glu Met Ile Leu Lys Asn		1310
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<211> 165

<212> PRT

<213> Homo sapiens

<400> 5362

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Asn	Cys	Trp	Asp	His	Arg	Arg	Glu	Pro	Pro	Arg	Pro	Ala	Val	Cys	Leu
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Val	Phe	Lys	Pro	Ile	Asn	Glu	Pro	Val	Ser	Leu	Phe	Gly	Ile	Tyr	Asn
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Asn	Glu	Lys	Ile	His											
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<210> 5363

<211> 894

<212> DNA

<213> Homo sapiens

<400> 5363

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 120  
 cggcggttgca ccggetctgt gagcacctcc cctctgagca cttcccttgt gacaggccac  
 180  
 ttcccttgtg acaggcccag gacgaggtgg ccaggcggcc cccatggcgt ccctgggtcta  
 240  
 ggcgggagaac cgctggggcg atgagtgaga acctcgacaa cgaggggccc aagcccatgg  
 300

agagctgtgg ccaggagagc agcagtgcc tgagctgcc taccgtctcg gtgccccctg  
 360  
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 420  
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 480  
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 720  
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 780  
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 894

<210> 5364

<211> 187

<212> PRT

<213> Homo sapiens

<400> 5364

Ala	Ala	Leu	Pro	Ser	Arg	Cys	Pro	Leu	Gln	Pro	Arg	Gln	Pro	Trp	Arg
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Arg	Trp	Arg	Lys	Arg	Ala	Leu	Gly	Arg	Leu	Gln	Gly	Xaa	Gly	Pro	Gln
			20					25					30		
Pro	Gly	Leu	Tyr	Ser	Tyr	Ile	Arg	Asp	Asp	Leu	Phe	Thr	Ser	Glu	Ile
		35					40					45			
Phe	Lys	Leu	Glu	Leu	Gln	Asn	Ala	Pro	Arg	His	Ala	Ser	Phe	Ser	Asp
	50					55					60				
Val	Arg	Arg	Phe	Leu	Gly	Arg	Phe	Gly	Leu	Gln	Pro	His	Lys	Thr	Lys
65					70					75					80
Leu	Phe	Gly	Gln	Pro	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala
				85					90					95	
Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
			100					105					110		
Arg	Pro	Leu	Ser	Val	Ala	Trp	Pro	Gly	Pro	Arg	Pro	Thr	Pro	Trp	Pro
		115					120					125			
Gly	Gly	Gly	Xaa	Gln	Glu	Gly	Glu	Ser	Glu	Pro	Pro	Val	Thr	Arg	Xaa
	130					135					140				
Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
145					150					155					160
Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
				165					170					175	
Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
			180					185							

<210> 5365

<211> 1824

<212> DNA

<213> Homo sapiens

<400> 5365

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120  
gaactcgcca gaaaactgca ggaggaagct acgtgctcca tctgtctgga ttacttcaca  
180  
gacctgtga tgaccacctg tggccacaac ttctgccgag cctgcatcca gctgagctgg  
240  
gaaaaggcga ggggcaagaa ggggaggcgg aagcggaagg gctccttccc ctgccccgag  
300  
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360  
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420  
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480  
cgggagcacc ggctgcacag ggtgctgcc gccgaggagg cagtgcagg gtacaagttg  
540  
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600  
gccaggagg agcagagctt agccgagtgg cagggaagg tgaaggagcg gagagaacgc  
660  
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720  
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780  
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840  
caggggcccc tccagatgct gcaggacatg aaggaacccc tgagcaggaa gaacaacgtg  
900  
agtgtgcagt gccagaggt tgcccccca accagacca ggactgtgtg cagagttccc  
960  
ggacagattg aagtgtctag aggccttcta gaggatgtgg tgctgatgc cacctccgag  
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gaaaacggct tctgggtggg gcagctgtcc aaggggacca agtacttacc caccttctct  
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gccctaacc cggatcatgt gatggagcct ccagccaca tgggcatctt cctggaactc  
1380  
gaagccgggg aagtgtcctt ctacagtgtg agcgatgggt ccacactgca cacctactcc  
1440  
caggccacct tcccaggccc cctgcagcct ttcttctgce tgggggctcc gaagtctggg  
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 1680  
 aatataattg tgattagaac tgtcaaacat taagagggtg tactgacaga tgcttcctag  
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<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

Met	Glu	Ala	Val	Glu	Leu	Ala	Arg	Lys	Leu	Gln	Glu	Glu	Ala	Thr	Cys
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Ser	Ile	Cys	Leu	Asp	Tyr	Phe	Thr	Asp	Pro	Val	Met	Thr	Thr	Cys	Gly
			20					25					30		
His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
		35					40					45			
Gly	Lys	Lys	Gly	Arg	Arg	Lys	Arg	Lys	Gly	Ser	Phe	Pro	Cys	Pro	Glu
	50					55				60					
Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
65				70					75					80	
Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
				85					90					95	
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
			100					105					110		
Asp	Gln	Ser	Pro	Ile	Cys	Val	Val	Cys	Arg	Glu	Ser	Arg	Glu	His	Arg
		115					120					125			
Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
	130					135					140				
Lys	Leu	Glu	Glu	Asp	Met	Glu	Tyr	Leu	Arg	Glu	Gln	Ile	Thr	Arg	Thr
145				150					155					160	
Gly	Asn	Leu	Gln	Ala	Arg	Glu	Glu	Gln	Ser	Leu	Ala	Glu	Trp	Gln	Gly
			165					170					175		
Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
			180					185					190		
Asn	Leu	Tyr	Leu	Val	Glu	Glu	Glu	Gln	Arg	Leu	Leu	Gln	Ala	Leu	Glu
	195						200					205			
Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
	210					215					220				
Leu	Asp	Arg	Gln	Gly	His	Ser	Leu	Glu	Leu	Leu	Leu	Gln	Leu	Glu	
225				230					235					240	
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
			245					250					255		
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
			260					265					270		
Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu



275                      280                      285  
 Val Leu Arg Gly Phe Leu Glu Asp Val Val Pro Asp Ala Thr Ser Ala  
 290                      295                      300  
 Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly  
 305                      310                      315                      320  
 Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala  
 325                      330                      335  
 Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr  
 340                      345                      350  
 Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly  
 355                      360                      365  
 Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro  
 370                      375                      380  
 Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu  
 385                      390                      395                      400  
 Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser  
 405                      410                      415  
 His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr  
 420                      425                      430  
 Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe  
 435                      440                      445  
 Pro Gly Pro Leu Gln Pro Phe Phe Cys Leu Gly Ala Pro Lys Ser Gly  
 450                      455                      460  
 Gln Met Val Ile Ser Thr Val Thr Met Trp Val Lys Gly  
 465                      470                      475

&lt;210&gt; 5367

&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5367

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 180  
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 240  
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 300  
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 360  
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 420  
 aatgaggggg aagaggatga agaattgggag gacataagtg aggatgagga agaggaggag  
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 549

&lt;210&gt; 5368

<211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 5368  
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 20 25 30  
 Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu  
 35 40 45  
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr  
 50 55 60  
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile  
 65 70 75 80  
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu  
 85 90 95  
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu  
 100 105 110  
 Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp  
 115 120 125  
 His Gln Ala Pro Glu Ala Ala Pro Thr  
 130 135

<210> 5369  
 <211> 646  
 <212> DNA  
 <213> Homo sapiens

<400> 5369  
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 120  
 cagcagcagc agctcctgca gccgcggccc tcgcccgtgg gcagcagcgg gcccgagccc  
 180  
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 240  
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 300  
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 360  
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 420  
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 480  
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<210> 5370

<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 5370  
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 Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys  
 35 40 45  
 Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro  
 50 55 60  
 Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala  
 65 70 75 80  
 His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro  
 85 90 95  
 Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg  
 100 105 110  
 Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Leu Pro Pro Ser Pro  
 115 120 125  
 Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser  
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 Pro Phe Leu Phe  
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<210> 5371  
 <211> 1177  
 <212> DNA  
 <213> Homo sapiens

<400> 5371  
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<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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			20					25					30		
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35				40						45			
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
	50					55					60				
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
65					70					75				80	
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
			85					90					95		
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
			100					105					110		
Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
		115					120					125			
Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
	130					135					140				
Asn	Asp	Leu	Asn	Ala	Val	Glu	Arg	Tyr	Asp	Pro	Ala	Thr	Asn	Ser	Trp
145				150					155					160	
Ala	Tyr	Val	Ala	Pro	Leu	Lys	Arg	Glu	Val	Tyr	Ala	His	Ala	Gly	Ala
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Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly	Glu	Asp
		180					185						190		
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr	Trp	His
	195					200						205			
Thr	Leu	Ala	Asp	Gly	Pro	Val	Arg	Arg	Ala	Trp	His	Gly	Met	Ala	Thr
	210					215					220				
Leu	Leu	Asn	Lys	Leu	Tyr	Val	Ile	Gly	Gly	Ser	Asn	Asn	Asp	Ala	Gly

225					230					235				240
Tyr	Arg	Arg	Asp	Val	His	Gln	Val	Ala	Cys	Tyr	Ser	Cys	Thr	Ser
				245					250					255
Gln	Trp	Ser	Ser	Val	Cys	Pro	Leu	Pro	Ala	Gly	His	Gly	Glu	Pro
				260					265					270
Ile	Ala	Val	Leu	Asp	Asn	Arg	Ile	Tyr	Val	Leu	Gly	Gly	Arg	Ser
				275					280					285
Asn	Arg	Gly	Ser	Arg	Thr	Gly	Tyr	Val	His	Ile	Tyr	Asp	Val	Glu
				290					295					300
Asp	Cys	Trp	Glu	Glu	Gly	Pro	Gln	Leu	Asp	Asn	Ser	Ile	Ser	Gly
														305
Ala	Ala	Cys	Val	Leu	Thr	Leu	Pro	Arg	Ser	Leu	Leu	Leu	Glu	Pro
														310
Arg	Gly	Thr	Pro	Asp	Arg	Ser	Gln	Ala	Asp	Pro	Asp	Phe	Ala	Ser
														315
Val	Met	Ser	Val	Ser	Asp	Trp	Glu	Glu	Phe	Asp	Asn	Ser	Ser	Glu
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														345
														350
														355
														360
														365

&lt;210&gt; 5373

&lt;211&gt; 4221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5373

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 180  
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 240  
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 300  
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 420  
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 480  
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 720  
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 840  
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<212> PRT

<213> Homo sapiens

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4555

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Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn				
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Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His				
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Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile				
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Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser				
	850		855	860
Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu				
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&lt;211&gt; 526

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5375

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5376

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&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5377

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&lt;400&gt; 5379

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&lt;210&gt; 5380

&lt;211&gt; 903

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5380

Met	Pro	Pro	Thr	Glu	Asp	Arg	Ser	Trp	Trp	Arg	Gly	Lys	Arg	Gly	Phe
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Gln	Leu	Cys	His	Gly	Leu	Val	Gly	Ser	Trp	Pro	Ala	Cys	Ser	Ala	Pro
			20					25					30		
Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
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Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
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Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
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Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
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Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
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Leu	Tyr	Phe	Arg	Glu	Leu	Pro	Asn	Pro	Leu	Leu	Thr	Tyr	Gln	Leu	Tyr
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Gly	Lys	Phe	Ser	Glu	Ala	Met	Ser	Val	Pro	Gly	Glu	Glu	Glu	Arg	Leu
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Val	Arg	Val	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg
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Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
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Ala	Asn	Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro
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Asn	Leu	Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala
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Gln	Arg	Lys	Pro	Gly	Gly	Ser	Ser	Trp	Lys	Thr	Phe	Phe	Ala	Leu
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Arg	Gly	Pro	Ser	Val	Pro	Arg	Lys	Lys	Pro	Leu	Pro	Trp	Leu	Gly
		340					345						350	
Thr	Arg	Ala	Pro	Pro	Gln	Pro	Ser	Ala	Trp	Leu	Asp	Asp	Gly	Asp
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Ala	Thr	Pro	Thr	Pro	Ala	Leu	Ser	Pro	Gly	Arg	Ser	Leu	Arg	Pro
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Leu	Ile	Pro	Leu	Leu	Leu	Arg	Gly	Ala	Glu	Ala	Pro	Leu	Thr	Asp
			485						490					495
Cys	Gln	Gln	Glu	Met	Cys	Ser	Lys	Leu	Arg	Gly	Ala	Gln	Gly	Pro
			500					505					510	
Ala	Arg	Leu	Met	Ala	Leu	Ala	Leu	Ala	Glu	Arg	Ala	Gln	Gln	Val
		515					520					525		
Glu	Gln	Gln	Ser	Gln	Gln	Glu	Cys	Gly	Gly	Thr	Pro	Pro	Ala	Ser
	530					535						540		
Ser	Pro	Phe	His	Arg	Ser	Leu	Ser	Leu	Glu	Val	Gly	Gly	Glu	Pro
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Gly	Thr	Ser	Gly	Ser	Gly	Pro	Pro	Pro	Asn	Ser	Leu	Ala	His	Pro
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Ala	Trp	Val	Pro	Gly	Pro	Pro	Pro	Tyr	Leu	Pro	Arg	Gln	Gln	Ser
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Ser	Gln	Val	Pro	Thr	Pro	Gly	Phe	Phe	Ser	Pro	Ala	Pro	Arg	Glu
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 690 695 700  
 Ile Gly Ala Ser Glu Gly Ser Pro Tyr Ser Gly Pro Thr Arg Ser Trp  
 705 710 715 720  
 Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly  
 725 730 735  
 Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu  
 740 745 750  
 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr  
 755 760 765  
 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu  
 770 775 780  
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser  
 785 790 795 800  
 Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly  
 805 810 815  
 Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro  
 820 825 830  
 Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu  
 835 840 845  
 Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Gly Glu Leu  
 850 855 860  
 His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala  
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&lt;210&gt; 5381

&lt;211&gt; 1576

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5381

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<210> 5382

<211> 223

<212> PRT

<213> Homo sapiens

<400> 5382

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Glu	Lys	Gly	Ser	Val	Val	Glu	Gly	Ser	Asn	Val	Ser	Gly	Ala	Leu	Cys
		20					25					30			
Ile	Ser	Gln	Ala	Trp	Pro	Gly	Met	Ala	Arg	Thr	Ile	Tyr	Gly	Asp	His
		35				40					45				
Gln	Arg	Phe	Val	Asp	Ala	Tyr	Phe	Lys	Ala	Tyr	Pro	Gly	Tyr	Tyr	Phe
	50				55						60				
Thr	Gly	Asp	Gly	Ala	Tyr	Arg	Thr	Glu	Gly	Gly	Tyr	Tyr	Gln	Ile	Thr

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65          70          75          80
Gly Arg Met Asp Asp Val Ile Asn Ile Ser Gly His Arg Leu Gly Thr
          85          90          95
Ala Glu Ile Glu Asp Ala Ile Ala Asp His Pro Ala Val Pro Glu Ser
          100          105          110
Ala Val Ile Gly Tyr Pro His Asp Ile Lys Gly Glu Ala Ala Phe Ala
          115          120          125
Phe Ile Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Val Gln
          130          135          140
Glu Leu Lys Ser Met Val Ala Thr Lys Ile Ala Lys Tyr Ala Val Pro
145          150          155          160
Asp Glu Ile Leu Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys
          165          170          175
Val Met Arg Arg Leu Leu Arg Lys Ile Thr Ser Glu Ala Gln Glu
          180          185          190
Leu Gly Asp Thr Thr Thr Leu Glu Asp Pro Ser Ile Ile Ala Glu Ile
          195          200          205
Leu Ser Val Tyr Gln Lys Cys Lys Asp Lys Gln Ala Ala Ala Lys
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&lt;210&gt; 5383

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5383

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 2027

&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

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 Phe Pro Lys Val Glu Tyr Ile Ala Arg Ala Gly Ala Trp Ala Met Phe  
 20 25 30  
 Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu Leu Pro Pro Ala  
 35 40 45  
 Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg Leu Ala Ser Ala

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Arg	Ala	Val	Pro	Arg	Asn	Val	Gln	Pro	Tyr	Val	Val	Tyr	Glu	Glu	Val
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Thr	Asn	Val	Trp	Ile	Asn	Val	His	Asp	Ile	Phe	Tyr	Pro	Phe	Pro	Gln
				85					90						95
Ser	Glu	Gly	Glu	Asp	Glu	Leu	Cys	Phe	Leu	Arg	Ala	Asn	Glu	Cys	Lys
			100					105					110		
Thr	Gly	Phe	Cys	His	Leu	Tyr	Lys	Val	Thr	Ala	Val	Leu	Lys	Ser	Gln
		115						120				125			
Gly	Tyr	Asp	Trp	Ser	Glu	Pro	Phe	Ser	Pro	Gly	Glu	Gly	Glu	Gln	Ser
	130					135					140				
Leu	Thr	Asn	Ala	Ile	Trp	Val	Asn	Glu	Glu	Thr	Lys	Leu	Val	Tyr	Phe
145					150					155					160
Gln	Gly	Thr	Lys	Asp	Thr	Pro	Leu	Glu	His	His	Leu	Tyr	Val	Val	Ser
				165					170						175
Tyr	Glu	Ala	Ala	Gly	Glu	Ile	Val	Arg	Leu	Thr	Thr	Pro	Gly	Phe	Ser
			180					185					190		
His	Ser	Cys	Ser	Met	Ser	Gln	Asn	Phe	Asp	Met	Phe	Val	Ser	His	Tyr
	195						200					205			
Ser	Ser	Val	Ser	Thr	Pro	Pro	Cys	Val	His	Val	Tyr	Lys	Leu	Ser	Gly
	210					215					220				
Pro	Asp	Asp	Asp	Pro	Leu	His	Lys	Gln	Pro	Arg	Phe	Trp	Ala	Ser	Met
225					230					235					240
Met	Glu	Ala	Ala	Lys	Ile	Phe	His	Phe	His	Thr	Arg	Ser	Asp	Val	Arg
				245					250						255
Leu	Tyr	Gly	Met	Ile	Tyr	Lys	Pro	His	Ala	Leu	Gln	Pro	Gly	Lys	Lys
			260					265					270		
His	Pro	Thr	Val	Leu	Phe	Val	Tyr	Gly	Gly	Pro	Gln	Val	Gln	Leu	Val
		275					280					285			
Asn	Asn	Ser	Phe	Lys	Gly	Ile	Lys	Tyr	Leu	Arg	Leu	Asn	Thr	Leu	Ala
	290					295					300				
Ser	Leu	Gly	Tyr	Ala	Val	Val	Val	Ile	Asp	Gly	Arg	Gly	Ser	Cys	Gln
305					310				315						320
Arg	Gly	Leu	Arg	Phe	Glu	Gly	Ala	Leu	Lys	Asn	Gln	Met	Gly	Gln	Val
				325					330						335
Glu	Ile	Glu	Asp	Gln	Val	Glu	Gly	Leu	Gln	Phe	Val	Ala	Glu	Lys	Tyr
			340					345					350		
Gly	Phe	Ile	Asp	Leu	Ser	Arg	Val	Ala	Ile	His	Gly	Trp	Ser	Tyr	Gly
		355					360					365			
Gly	Phe	Leu	Ser	Leu	Met	Gly	Leu	Ile	His	Lys	Pro	Gln	Val	Phe	Lys
	370					375					380				
Val	Ala	Ile	Ala	Gly	Ala	Pro	Val	Thr	Val	Trp	Met	Ala	Tyr	Asp	Thr
385					390					395					400
Gly	Tyr	Thr	Glu	Arg	Tyr	Met	Asp	Val	Pro	Glu	Asn	Asn	Gln	His	Gly
				405					410					415	
Tyr	Glu	Ala	Gly	Ser	Val	Ala	Leu	His	Val	Glu	Lys	Leu	Pro	Asn	Glu
			420					425					430		
Pro	Asn	Arg	Leu	Leu	Ile	Leu	His	Gly	Phe	Leu	Asp	Glu	Asn	Val	His
		435					440					445			
Phe	Phe	His	Thr	Asn	Phe	Leu	Val	Ser	Gln	Leu	Ile	Arg	Ala	Gly	Lys
	450					455					460				
Pro	Tyr	Gln	Leu	Gln	Val	Ala	Leu	Pro	Pro	Val	Ser	Pro	Gln	Ile	Tyr
465					470					475					480
Pro	Asn	Glu	Arg	His	Ser	Ile	Arg	Cys	Pro	Glu	Ser	Gly	Glu	His	Tyr

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<211> 314
<212> DNA
<213> Homo sapiens

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120
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180
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300
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314

<210> 5386
<211> 100
<212> PRT
<213> Homo sapiens

<400> 5386
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Ser Val Pro Ser Pro Pro Arg Ala Gln Pro Leu Gly Arg Gly Leu His
 35      40      45
Ala Gly Trp Leu Ala Arg Leu Gly Gln Pro Gly Leu Leu Gly Pro Tyr
 50      55      60
Ala Ala Pro Thr Phe His Phe Leu Glu Met His Pro His Leu Gln Glu
65      70      75      80
Asn Cys Phe Arg Lys Cys Leu Gln His Ser Arg Glu Trp Asn Lys Gln
 85      90      95
Gly Pro Asn Ala
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<210> 5387
<211> 375
<212> DNA
<213> Homo sapiens

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120

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<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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Gln	Met	Ala	Tyr	Thr	Ala	Thr	His	Gln	Ser	Met	Gly	Asn	Trp	Ser	Met
			20					25					30		
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40					45			
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	50					55					60				
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
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Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
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Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
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<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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<210> 5390

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<212> PRT

<213> Homo sapiens

<400> 5390

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&lt;400&gt; 5392

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&lt;210&gt; 5393

&lt;211&gt; 4837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5393

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&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5394

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3711

<210> 5396

<211> 760

<212> PRT

<213> Homo sapiens

<400> 5396

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			20					25				30			
Ala	Ile	Val	Glu	Ile	Phe	Ser	Lys	Tyr	Gln	Lys	Ala	Ala	Glu	Glu	Thr
		35					40				45				
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				85					90					95	
Ile	Arg	His	Arg	Ala	Asp	His	Pro	Pro	Ala	Glu	Val	Thr	Ser	His	Ala
			100					105					110		
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Leu	Ser	Ser	Ser	Thr	Phe	Asp	Ser	Glu	Lys	Asn	Glu	Ser	Arg	Arg	Asn
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		260					265						270		
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Glu	Gly	Glu	Lys	Ile	Ser	Ala	Asn	Glu	Asn	Ser	Leu	Ala	Val	Arg	Ser
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Ser	Ser	Leu	Ser	Glu	Ser	Ser	Pro	Pro	Lys	Ala	Met	Lys	Lys	Phe	Gln
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385				390						395					400
Met	Glu	Arg	Leu	Leu	Ala	Asn	Gln	Gln	Val	Phe	His	Ile	Ser	Cys	Phe
			405					410						415	
Arg	Cys	Ser	Tyr	Cys	Asn	Asn	Lys	Leu	Ser	Leu	Gly	Thr	Tyr	Ala	Ser
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Ser	Lys	Gly	Asn	Tyr	Asp	Glu	Gly	Phe	Gly	His	Arg	Pro	His	Lys	Asp
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Gln	Leu	Ala	Asn	Ala	Arg	Glu	Thr	Pro	His	Ser	Pro	Gly	Val	Glu	Asp
			485					490						495	
Ala	Pro	Ile	Ala	Lys	Val	Gly	Val	Leu	Ala	Ala	Ser	Met	Glu	Ala	Lys

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Ala	Ser Ser Gln Gln Glu Lys Glu Asp Lys Pro Ala Glu Thr Lys Lys				
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Leu	Arg Ile Ala Trp Pro Pro Pro Thr Glu Leu Gly Ser Ser Gly Ser				
	530		535		540
Ala	Leu Glu Glu Gly Ile Lys Met Ser Lys Pro Lys Trp Pro Pro Glu				
545		550		555	560
Asp	Glu Ile Ser Lys Pro Glu Val Pro Glu Asp Val Asp Leu Asp Leu				
	565		570		575
Lys	Lys Leu Arg Arg Ser Ser Ser Leu Lys Glu Arg Ser Arg Pro Phe				
	580		585		590
Thr	Val Ala Ala Ser Phe Gln Ser Thr Ser Val Lys Ser Pro Lys Thr				
	595		600		605
Val	Ser Pro Pro Ile Arg Lys Gly Trp Ser Met Ser Glu Gln Ser Glu				
	610		615		620
Glu	Ser Val Gly Gly Arg Val Ala Glu Arg Lys Gln Val Glu Asn Ala				
625		630		635	640
Lys	Ala Ser Lys Lys Asn Gly Asn Val Gly Lys Thr Thr Trp Gln Asn				
	645		650		655
Lys	Glu Ser Lys Gly Glu Thr Gly Lys Arg Ser Lys Glu Gly His Ser				
	660		665		670
Leu	Glu Met Glu Asn Glu Asn Leu Val Glu Asn Gly Ala Asp Ser Asp				
	675		680		685
Glu	Asp Asp Asn Ser Phe Leu Lys Gln Gln Ser Pro Gln Glu Pro Lys				
	690		695		700
Ser	Leu Asn Trp Ser Ser Phe Val Asp Asn Thr Phe Ala Glu Glu Phe				
705		710		715	720
Thr	Thr Gln Asn Gln Lys Ser Gln Asp Val Glu Leu Trp Glu Gly Glu				
	725		730		735
Val	Val Lys Glu Leu Ser Val Glu Glu Gln Ile Lys Arg Asn Arg Tyr				
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Tyr	Asp Glu Asp Glu Asp Glu Glu				
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&lt;210&gt; 5397

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5397

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420

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<210> 5398

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5398

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Asp	Ala	Ile	His	Ser	Ala	Gly	Thr	Tyr	Ala	His	Asp	Gln	Leu	Ser	Gln
			20					25					30		
Thr	Ser	Ile	Pro	Ile	Ser	Pro	Pro	Leu	Thr	Pro	Gln	Asp	Ala	Asn	Glu
		35					40					45			
Ala	Gln	Gly	Trp	Ala	Glu	Ala	Gly	Arg	Ala	Val	His	Arg	Glu	Asp	Pro
	50					55					60				
Arg	Val	Ser	Leu	Gly	Leu	Pro	Arg	Trp	Leu	Cys	Pro	Pro	Phe	Cys	Leu
65					70					75					80
Gly	Gly	Ser	Leu	Arg	Leu	Gly	Arg	Ala	Gln	Arg	Glu	Gly	Asp	Pro	Glu
			85						90					95	
Gly	Leu	Ala	Asp	Ser	Gly	Pro	Pro	Cys	Glu	Leu	Arg	Phe	Glu	Glu	Glu
			100					105					110		
Ser	Arg	Pro	Pro	Arg	Val	Val	Gly	Glu	Ser	Thr	Gly	Arg	Lys	Ala	Gly
		115					120					125			
Ile	Ser	Thr	Glu	Gly	Leu	Ser	Ala	Ser	Phe	Asp	Leu	Phe	Gln	Ser	Phe
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<210> 5399

<211> 835

<212> DNA

<213> Homo sapiens

<400> 5399

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 180  
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 480  
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<210> 5400

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5400

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Gly	Pro	Thr	Met	Gly	Arg	Ser	Gln	Gly	Ser	Pro	Met	Asp	Pro	Met	Val
			20					25				30			
Met	Lys	Arg	Pro	Gln	Leu	Tyr	Gly	Met	Gly	Ser	Asn	Pro	His	Ser	Gln
			35				40				45				
Pro	Gln	Gln	Ser	Ser	Pro	Tyr	Pro	Gly	Gly	Ser	Tyr	Gly	Pro	Pro	Gly
			50			55				60					
Pro	Gln	Arg	Tyr	Pro	Ile	Gly	Ile	Gln	Gly	Arg	Thr	Pro	Gly	Ala	Met
65					70					75				80	
Ala	Gly	Met	Gln	Tyr	Pro	Gln	Gln	Gln	Met	Pro	Pro	Gln	Tyr	Gly	Gln
			85					90						95	
Gln	Gly	Val	Ser	Gly	Tyr	Cys	Gln	Gln	Gly	Gln	Gln	Pro	Tyr	Tyr	Ser
			100					105					110		
Gln	Gln	Pro	Gln	Pro	Pro	His	Leu	Pro	Pro	Gln	Ala	Gln	Tyr	Leu	Pro
			115				120					125			
Ser	Gln	Ser	Gln	Gln	Arg	Tyr	Gln	Pro	Gln	Gln	Asp	Met	Ser	Gln	Glu
			130			135					140				
Gly	Tyr	Gly	Thr	Arg	Ser	Gln	Pro	Pro	Leu	Ala	Pro	Gly	Lys	Pro	Asn
145					150					155				160	
His	Glu	Asp	Leu	Asn	Leu	Ile	Gln	Gln	Glu	Arg	Pro	Ser	Ser	Leu	Pro
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<210> 5401

<211> 2674

<212> DNA

<213> Homo sapiens

<400> 5401

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180  
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420  
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&lt;210&gt; 5402

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5402

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			20					25					30		
Pro	Arg	His	Val	Ala	Asp	Met	Val	Ile	Ser	Glu	Ser	Met	Asp	Ile	Leu
		35					40					45			
Phe	Arg	Ile	Arg	Gly	Gly	Leu	Asp	Leu	Ala	Phe	Gln	Leu	Ala	Thr	Pro
	50					55					60				
Asn	Glu	Ile	Phe	Leu	Lys	Lys	Ala	Leu	Lys	His	Val	Leu	Ser	Asp	Leu
65					70					75				80	
Ser	Thr	Lys	Leu	Ser	Ser	Asn	Ala	Leu	Val	Phe	Arg	Ile	Cys	His	Ser
			85					90					95		
Ser	Val	Tyr	Ile	Trp	Pro	Ser	Ser	Asp	Ile	Asn	Thr	Ile	Pro	Gly	Glu

[illegible]

<210> 5403

<211> 451

<212> DNA

<213> Homo sapiens

<400> 5403

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<210> 5404

<211> 150

<212> PRT

<213> Homo sapiens

<400> 5404

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      20          25          30
Ser Pro Ala Leu Thr Met Ala Pro Ser Ser Leu Gly Ala Leu Gly Pro
      35          40          45
Trp Val Gly Ala Leu Glu Leu Pro Arg Leu Gln Ala Pro Leu Ser Gln
      50          55          60
Pro Gly Thr His Ala Gly Ala Xaa Asp Pro Arg Pro Ser Leu Arg Lys
65          70          75          80
Ala Ser Leu Arg Ala Ala Ser Pro Ala Ala Ser Ser Ser Pro Trp Ala
      85          90          95
Arg Val Pro Cys Ser Arg Ala Arg Arg Pro Lys Ser Ala Glu Leu Leu
      100         105         110
Arg Ile Pro Gly Thr Ser Thr Arg Pro Lys Lys Glu Arg Gly Cys Pro
      115         120         125
Ser Pro Gly Leu Pro Ala Ala Gly Pro Gly Pro Ser Pro Ala Gly Arg
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Gly Pro Gly Pro Gln Ala
145          150

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<210> 5405

<211> 1609

<212> DNA

<213> Homo sapiens

<400> 5405



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<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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&lt;211&gt; 2019

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5409

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Glu	Ala	Val	Ser	Gln	Ala	Ser	Ser	His	Pro	Glu	Asn	Ser	Glu	Glu	Glu
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Gly	Glu	Gly	Phe	Ile	Leu	Ala	Cys	Leu	Glu	Tyr	Tyr	His	Tyr	Asp	Pro

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Glu Gln Val Ile Asn Asn Ile Leu Glu Glu Arg Leu Ala Pro Thr Leu				
385		390		400
Ser Gln Leu Asp Arg Asn Leu Asp Arg Glu Met Lys Pro Asp Pro Thr				
	405		410	415
Pro Leu Leu Thr Ser Arg His Asn Val Phe Gln Asn Asp Glu Phe Asp				
	420		425	430
Val Phe Ser Arg Asp Ser Val Asp Leu Ser Arg Val His Lys Gly Lys				
	435		440	445
Ser Thr Arg Lys Glu Glu Asn Thr Arg Ser Leu Leu Asn Asp Lys Arg				
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Ala Val Ala Ala Gln Arg Gln Arg Tyr Glu Gln Tyr Ser Val Val Val				
465		470		480
Glu Glu Val Pro Leu Gln Pro Gly Glu Ser Leu Pro Tyr His Ser Val				
	485		490	495
Tyr Tyr Glu Asp Glu Tyr Asp Asp Thr Tyr Asp Gly Asn Gln Val Gly				
	500		505	510
Ala Asn Asp Ala Asp Ser Met Thr Ser Ser Ser Ala Ala Gly His Ser				
	515		520	525
Pro Ser Gln Val Leu Arg Thr Lys Val Pro Arg Glu Gly Gln Glu Glu				
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Asp Asp Asp Asp Glu Glu Asp Asp Ala Asp Glu Glu Ala Pro Lys Pro				
545		550		560
Asp His Phe Val Gln Asp Pro Ala Val Leu Arg Glu Lys Ala Glu Ala				
	565		570	575
Arg Arg Met Ala Phe Leu Ala Lys Lys Gly Tyr Arg His Asp Ser Ser				
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Thr Ala Val Ala Gly Ser Pro Arg Gly His Gly Gln Ser Arg Glu Thr				
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Thr Gln Glu Arg Arg Lys Lys Glu Ala Asn Lys Ala Thr Arg Ala Asn				
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Pro Ser				640

&lt;210&gt; 5413

&lt;211&gt; 1677

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5413

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&lt;210&gt; 5414

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5414

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Lys	Asn	Asn	Ile	Lys	Ala	Ser	Leu	His	Asn	Val	Lys	Ser	Ser	Leu	Pro
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Thr	Leu	Asn	Ser	Pro	Ile	Tyr	Met	Gln	Lys	Gln	Gly	Lys	Asn	Glu	His
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Val	Leu	Val	Ser	Thr	Thr	Val	Pro	Thr	Val	His	His	Val	Ser	Asp	Leu
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Glu	Met	Ser	Ser	Thr	Leu	Asp	Cys	Leu	Pro	Val	Leu	Ala	Asp	Trp	Glu
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Thr	Val	Pro	Ile	Ser	Asp	Ser	Asp	Leu	Glu	Ile	Ser	Phe	Asn	Ser	Gly
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Ser	Ser	Thr	Phe	Asn	Arg	Val	Asn	Ala	Asn	Met	Ser	His	Pro	Leu	Val
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		260					265						270		
Ser	Pro	Gln	Ala	Phe	Pro	Pro	Ala	Lys	Lys	Gln	Pro	Phe	Thr	Ile	His
		275					280					285			
Glu	Glu	Lys	Pro	Thr	Ser	Ser	Asp	Cys	Ser	Pro	Val	Arg	Ser	Ser	Ser
	290					295					300				
Trp	Arg	Arg	Leu	Pro	Ser	Ile	Leu	Thr	Ser	Thr	Val	Asn	Leu	Gln	Glu
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Pro	Trp	Lys	Ser	Gly	Lys	Met	Thr	Pro	Pro	Leu	Cys	Lys	Cys	Gly	Arg
			325					330						335	
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Val	Phe	Tyr	Cys	Cys	Pro	Ile	Gly	Lys	Tyr	Gln	Glu	Asn	Arg	Lys	Cys
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<210> 5415

<211> 1493

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5415

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<210> 5416  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

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<210> 5417  
 <211> 2087  
 <212> DNA  
 <213> Homo sapiens

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<210> 5418

<211> 528

<212> PRT

<213> Homo sapiens

<400> 5418

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Lys	Gly	Pro	Val	Ala	Val	Thr	Gly	Ala	Ser	Thr	Pro	Glu	Gly	Thr	Ala			
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Pro	Pro	Pro	Pro	Ala	Ala	Pro	Ala	Pro	Pro	Lys	Gly	Glu	Lys	Glu	Gly			
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Gln	Arg	Pro	Thr	Gln	Pro	Val	Tyr	Gln	Ile	Gln	Asn	Arg	Gly	Met	Gly			
	130					135					140							
Thr	Ala	Ala	Pro	Ala	Ala	Met	Asp	Pro	Val	Val	Gly	Gln	Ala	Lys	Leu			
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Met	Asn	Trp	Cys	Asp	Ser	Ala	Ile	Glu	Tyr	Leu	Leu	Asp	Gln	Thr	Asp			
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Val	Leu	Val	Val	Gly	Val	Leu	Gly	Leu	Gln	Gly	Thr	Gly	Lys	Ser	Met			
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Tyr	Val	Phe	Arg	Ala	Gln	Ser	Ala	Glu	Met	Lys	Glu	Arg	Gly	Gly	Asn			
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Gln	Thr	Ser	Gly	Ile	Asp	Phe	Phe	Ile	Thr	Gln	Glu	Arg	Ile	Val	Phe			
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Leu	Asp	Thr	Gln	Pro	Ile	Leu	Ser	Pro	Ser	Ile	Leu	Asp	His	Leu	Ile			
			260					265					270					
Asn	Asn	Asp	Arg	Lys	Leu	Pro	Pro	Glu	Tyr	Asn	Leu	Pro	His	Thr	Tyr			
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Val	Glu	Met	Gln	Ser	Leu	Gln	Ile	Ala	Ala	Phe	Leu	Phe	Thr	Val	Cys			
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His	Val	Val	Ile	Val	Val	Gln	Asp	Trp	Phe	Thr	Asp	Leu	Ser	Leu	Tyr			
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Pro	Ser	Pro	Ser	His	Glu	Ser	Ser	Ser	Ser	Ser	Gly	Ser	Asp	Glu	Gly			
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385					390					395					400			
Gln	Leu	Met	Ala	His	Ser	His	Leu	Arg	Tyr	Lys	Gly	Thr	Leu	Ser	Met			
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 <212> DNA  
 <213> Homo sapiens

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<210> 5420  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

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65                70                75                80
Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly Arg Thr Val Tyr Pro
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      100                105                110
Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met Glu Leu Leu Glu
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Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly Thr Thr Asn Ile Asp
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Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys Glu Thr Ser Arg
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Gly Ile Gly Val Ser Ser Asn Gly Ala Lys Pro Glu Lys Ser
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&lt;210&gt; 5421

&lt;211&gt; 1239

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5421

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<210> 5422

<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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			20					25					30		
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr	Cys
			35				40					45			
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser	Met
	50					55					60				
Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr	Leu
65					70					75					80
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu
				85					90					95	
Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe
			100					105					110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu
			115				120					125			
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser
	130					135					140				
Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg	Ala
145					150					155					160
Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu	Leu
				165					170					175	
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile	Ser
			180					185					190		
Asp	Pro	Asn	Leu	Tyr	Gln	His	Gln	Pro	Ala	Leu	Glu	Trp	Cys	Val	Ala
		195					200					205			
Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu	Asn
	210					215					220				
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe	Leu
225					230					235					240
Ser	Gly	Leu	Ala	Leu	Cys	Leu	Ser	Ser	Ser	Met	Pro	Pro	Pro	Leu	Phe
				245					250					255	
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265

270

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<212> DNA  
<213> Homo sapiens

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1320

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<210> 5424

<211> 570

<212> PRT

<213> Homo sapiens

<400> 5424

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			20					25					30		
Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
		35					40					45			
Glu	Tyr	Arg	Asn	Ala	Val	Ser	Lys	Tyr	Thr	Met	Ala	Leu	Gln	Gln	Lys
	50					55					60				
Lys	Ala	Leu	Ser	Lys	Thr	Ser	Lys	Val	Arg	Pro	Ser	Thr	Gly	Asn	Ser

65					70					75				80
Ala	Ser	Thr	Pro	Gln	Ser	Gln	Cys	Leu	Pro	Ser	Glu	Ile	Glu	Val
				85					90					95
Tyr	Lys	Met	Ala	Glu	Cys	Tyr	Thr	Met	Leu	Lys	Gln	Asp	Lys	Asp
			100					105					110	
Ile	Ala	Ile	Leu	Asp	Gly	Ile	Pro	Ser	Arg	Gln	Arg	Thr	Pro	Lys
		115					120					125		
Asn	Met	Met	Leu	Ala	Asn	Leu	Tyr	Lys	Lys	Ala	Gly	Gln	Glu	Arg
	130					135					140			
Ser	Val	Thr	Ser	Tyr	Lys	Glu	Val	Leu	Arg	Gln	Cys	Pro	Leu	Ala
145					150					155				160
Asp	Ala	Ile	Leu	Gly	Leu	Leu	Ser	Leu	Ser	Val	Lys	Gly	Ala	Glu
			165						170					175
Ala	Ser	Met	Thr	Met	Asn	Val	Ile	Gln	Thr	Val	Pro	Asn	Leu	Asp
			180					185					190	
Leu	Ser	Val	Trp	Ile	Lys	Ala	Tyr	Ala	Phe	Val	His	Thr	Gly	Asp
		195					200					205		
Ser	Arg	Ala	Ile	Ser	Thr	Ile	Cys	Ser	Leu	Glu	Lys	Lys	Ser	Leu
	210					215					220			
Arg	Asp	Asn	Val	Asp	Leu	Gly	Ser	Leu	Ala	Asp	Leu	Tyr	Phe	Arg
225					230					235				240
Ala	Gly	Asp	Asn	Lys	Asn	Ser	Val	Leu	Lys	Phe	Glu	Gln	Ala	Gln
			245						250					255
Leu	Asp	Pro	Tyr	Leu	Ile	Lys	Gly	Met	Asp	Val	Tyr	Gly	Tyr	Leu
		260						265					270	
Ala	Arg	Glu	Gly	Arg	Leu	Glu	Asp	Val	Glu	Asn	Leu	Gly	Cys	Arg
		275					280					285		
Phe	Asn	Ile	Ser	Asp	Gln	His	Ala	Glu	Pro	Trp	Val	Val	Ser	Gly
	290					295					300			
His	Ser	Phe	Tyr	Ser	Lys	Arg	Tyr	Ser	Arg	Ala	Leu	Tyr	Leu	Gly
305					310					315				320
Lys	Ala	Ile	Gln	Leu	Asn	Ser	Asn	Ser	Val	Gln	Ala	Leu	Leu	Leu
			325						330					335
Gly	Ala	Ala	Leu	Arg	Asn	Met	Gly	Arg	Val	Gln	Glu	Ala	Ile	Ile
		340						345					350	
Phe	Arg	Glu	Ala	Ile	Arg	Leu	Ala	Pro	Cys	Arg	Leu	Asp	Cys	Tyr
		355					360					365		
Gly	Leu	Ile	Glu	Cys	Tyr	Leu	Ala	Ser	Asn	Ser	Ile	Arg	Glu	Ala
	370					375					380			
Val	Met	Ala	Asn	Asn	Val	Tyr	Lys	Thr	Leu	Gly	Ala	Asn	Ala	Gln
385					390					395				400
Leu	Thr	Leu	Leu	Ala	Thr	Val	Cys	Leu	Glu	Asp	Pro	Val	Thr	Gln
			405						410					415
Lys	Ala	Lys	Thr	Leu	Leu	Asp	Lys	Ala	Leu	Thr	Gln	Arg	Pro	Asp
			420					425					430	
Ile	Lys	Ala	Val	Val	Lys	Lys	Ala	Glu	Leu	Leu	Ser	Arg	Glu	Gln
		435					440					445		
Tyr	Glu	Asp	Gly	Ile	Ala	Leu	Leu	Arg	Asn	Ala	Leu	Ala	Asn	Gln
	450					455					460			
Asp	Cys	Val	Leu	His	Arg	Ile	Leu	Gly	Asp	Phe	Leu	Val	Ala	Val
465					470					475				480
Glu	Tyr	Gln	Glu	Ala	Met	Asp	Gln	Tyr	Ser	Ile	Ala	Leu	Ser	Leu
			485						490					495
Pro	Asn	Asp	Gln	Lys	Ser	Leu	Glu	Gly	Met	Gln	Lys	Met	Glu	Lys

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Glu Ser Pro Thr Asp Ala Thr Gln Glu Glu Asp Val Asp Asp Met Glu
          515              520              525
Gly Ser Gly Glu Glu Gly Asp Leu Glu Gly Ser Asp Ser Glu Ala Ala
          530              535              540
Gln Trp Ala Asp Gln Glu Gln Trp Phe Gly Met Ser Glu Gly Ala Ala
          545              550              555              560
Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu
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<210> 5425  
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 <212> DNA  
 <213> Homo sapiens

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540
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<210> 5426  
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 <212> PRT  
 <213> Homo sapiens

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Pro Ser Cys Ala Pro Ala Leu Leu Gly Ser Gly Cys Gly Ser Gly Glu
20          25          30
Ser Cys Asp Arg Gly Cys Leu Ala Ala Ile Leu Ala Ser Thr Ser Ala
35          40          45
Thr Gln Ala Arg Met Cys Pro Val Leu Arg Cys Cys Ser Glu Phe Ile
50          55          60
Glu Ala Xaa Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser

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65                      70                      75                      80  
Ser Asn Ile Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro  
                              85                      90                      95  
Glu Leu

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<210> 5427
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<212> DNA
<213> Homo sapiens
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<400> 5427
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120
tgaggataca tcagagggca aaatggatac agatactctg aaaaaacgtg cattctagct
180
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240
tggtattggc agcaggaaca gcatttatgg aacagagggg aagacacatt caaggaatga
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360
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366
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<210> 5428
<211> 101
<212> PRT
<213> Homo sapiens
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<400> 5428
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              20              25              30
Phe Gly His Ser Val Glu Asp Pro Ile Pro Ala Arg Met His Val Phe
              35              40              45
Ser Glu Tyr Leu Tyr Pro Phe Cys Pro Leu Met Tyr Pro Gln His Leu
              50              55              60
Glu Glu His Leu Ala Cys Ser Arg Tyr Ser Thr Arg Ile Phe Asp Leu
65              70              75              80
Phe Val Gly Leu Phe Met Thr Glu Ser Cys Ser Val Ala Gln Thr Gly
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Val Gln Tyr Ser Asp
              100

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<210> 5429
<211> 612
<212> DNA
<213> Homo sapiens
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<400> 5429



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 180  
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<210> 5430  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5430  
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 His Glu Glu Glu Val Arg Val Pro Ala Leu Ser Trp Gly Arg Pro Arg  
 35 40 45  
 Ala Pro Ala Pro Ala Ser Lys Pro Arg Pro Arg Leu Asp Leu Asn Cys  
 50 55 60  
 Leu Trp Leu Arg Pro Gln Pro Ile Phe Leu Trp Lys Leu Arg Pro Arg  
 65 70 75 80  
 Pro Val Pro Ala Ala Thr Pro Leu Thr Gly Pro Leu Pro Leu  
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<210> 5431  
 <211> 3005  
 <212> DNA  
 <213> Homo sapiens

<400> 5431  
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 120  
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420  
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<211> 863

<212> PRT

<213> Homo sapiens

<400> 5432

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Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro	Asn	Leu

4614

465					470					475					480
Ala	Glu	Arg	Ala	Gln	Gln	Val	Ala	Glu	Gln	Gln	Ser	Gln	Gln	Glu	Cys
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Leu	Glu	Val	Gly	Gly	Glu	Pro	Leu	Gly	Thr	Ser	Gly	Ser	Gly	Pro	Pro
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Pro	Met	Gly	Thr	Ser	Arg	Arg	Gly	Leu	Arg	Gly	Pro	Ala	Gln	Val	Ser
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			580					585					590		
Ala	Gln	Ser	Pro	Cys	Ser	Val	Pro	Ser	Gln	Val	Pro	Thr	Pro	Gly	Phe
	595						600					605			
Phe	Ser	Pro	Ala	Pro	Arg	Glu	Cys	Leu	Pro	Pro	Phe	Leu	Gly	Val	Pro
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Phe	Pro	Pro	Asp	His	Leu	Gly	Tyr	Ser	Ala	Pro	Gln	His	Pro	Ala	Arg
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Arg	Gly	Pro	Ser	Pro	Ala	Ser	Ser	Ser	Ser	Ser	Ser	Pro	Pro	Ala	His
	755						760					765			
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Pro	Trp	Gly	Pro	Pro	Glu	Pro	Leu	Leu	Leu	Tyr	Arg	Ala	Ala	Pro	Pro
				805					810					815	
Ala	Tyr	Gly	Arg	Gly	Gly	Glu	Leu	His	Arg	Gly	Ser	Leu	Tyr	Arg	Asn
			820					825					830		
Gly	Gly	Gln	Arg	Gly	Glu	Gly	Ala	Gly	Pro	Pro	Pro	Pro	Tyr	Pro	Thr
	835						840					845			
Pro	Ser	Trp	Ser	Leu	His	Ser	Glu	Gly	Gln	Thr	Arg	Ser	Tyr	Cys	
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&lt;210&gt; 5433

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5433

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&lt;210&gt; 5434

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5434

Asp	Leu	Thr	Asn	Leu	His	Tyr	Ser	Thr	Pro	Leu	Pro	Ala	Ser	Leu	Asp
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Thr	Thr	Asp	His	His	Phe	Gly	Ser	Met	Ser	Val	Gly	Asn	Ser	Val	Asn
			20					25					30		
Asn	Ile	Pro	Ala	Ala	Met	Thr	His	Leu	Gly	Ile	Arg	Ser	Ser	Ser	Gly
			35				40					45			
Leu	Gln	Ser	Ser	Arg	Ser	Asn	Pro	Ser	Ile	Gln	Ala	Thr	Leu	Asn	Lys
	50					55					60				
Thr	Val	Leu	Ser	Ser	Ser	Leu	Asn	Asn	His	Pro	Gln	Thr	Ser	Val	Pro
65					70					75					80
Asn	Ala	Ser	Ala	Leu	His	Pro	Ser	Leu	Arg	Leu	Phe	Ser	Leu	Ser	Asn
				85					90					95	
Pro	Ser	Leu	Ser	Thr	Thr	Asn	Leu	Ser	Gly	Pro	Ser	Arg	Arg	Arg	Gln
			100					105				110			
Pro	Pro	Val	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Gly	Pro	Glu	Ala	His	Gln
			115				120					125			

&lt;210&gt; 5435

&lt;211&gt; 617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5435

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240

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 Gly Thr Ile Arg Ala Asn Leu Tyr Phe Lys Ile Leu Gln Pro Lys Met  
 35 40 45  
 Lys Asn Asn His Ile Arg Ser Cys Arg Ala Val Leu His Arg Ser Asp  
 50 55 60  
 Leu Leu Val Arg Lys Leu Leu Ala Leu Cys Lys Glu Lys Glu Asp Cys  
 65 70 75 80  
 Asn Arg Asn His Glu Pro Gly Arg Glu Met Gly Leu Glu Lys Gly Glu  
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 Tyr Tyr Ser Thr Ile Val Met  
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&lt;210&gt; 5438

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5438

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Gly	Ser	Asn	His	Ala	Leu	Gly	Ala	Asn	Val	Glu	Leu	Trp	Ile	Met
		20					25				30			
Leu	Gln	Val	Val	Arg	Glu	Gly	Lys	Phe	Ser	Gly	Phe	Leu	Thr	Ser
		35				40					45			
Ser	Leu	Leu	Leu	Pro	Arg	Ala	Gln	Ile	Leu	Ala	Ala	Glu	Ala	Gly
	50					55				60				
Leu	Pro	Ser	Ser	Arg	Ser	Phe	Met	Gly	Phe	Ala	Ala	Pro	Phe	Thr
														Asn



65					70					75				80	
Lys	Arg	Lys	Ala	Tyr	Ser	Glu	Arg	Arg	Ile	Met	Gly	Tyr	Ser	Met	Gln
				85					90					95	
Glu	Met	Tyr	Glu	Val	Val	Ser	Asn	Val	Gln	Glu	Tyr	Arg	Glu	Phe	Val
			100					105					110		
Pro	Trp	Cys	Lys	Lys	Ser	Leu	Val	Val	Ser	Ser	Arg	Lys	Gly	His	Leu
		115				120						125			
Lys	Ala	Gln	Leu	Glu	Val	Gly	Phe	Pro	Pro	Val	Met	Glu	Arg	Tyr	Thr
	130					135					140				
Ser	Ala	Val	Ser	Met	Val	Lys	Pro	His	Met	Val	Lys	Ala	Val	Cys	Thr
145					150					155					160
Asp	Gly	Lys	Leu	Phe	Asn	His	Leu	Glu	Thr	Ile	Trp	Arg	Phe	Ser	Pro
			165					170					175		
Gly	Ile	Pro	Ala	Tyr	Pro	Arg	Thr	Cys	Thr	Val	Asp	Phe	Ser	Ile	Ser
		180						185				190			
Phe	Glu	Phe	Arg	Ser	Leu	Leu	His	Ser	Gln	Leu	Ala	Thr	Met	Phe	Phe
	195					200					205				
Asp	Glu	Val	Val	Lys	Gln	Asn	Val	Ala	Ala	Phe	Glu	Arg	Arg	Ala	Ala
	210				215					220					
Thr	Lys	Phe	Gly	Pro	Glu	Thr	Ala	Ile	Pro	Arg	Glu	Leu	Met	Phe	His
225					230					235				240	
Glu	Val	His	Gln	Thr											
				245											

&lt;210&gt; 5439

&lt;211&gt; 4234

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5439

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<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Gln	Arg	Met	Leu	Asn	Arg	Arg	Pro	Glu	Ile	Val	Val	Ala	Thr	Pro	Gly
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Arg	Gln	Leu	Arg	Cys	Leu	Val	Val	Asp	Glu	Ala	Asp	Arg	Met	Val	Glu
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Lys	Gly	His	Phe	Ala	Glu	Leu	Ser	Gln	Leu	Leu	Glu	Met	Leu	Asn	Asp
				85					90					95	
Ser	Gln	Tyr	Asn	Pro	Lys	Arg	Gln	Thr	Leu	Val	Phe	Ser	Ala	Thr	Leu
			100					105					110		
Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr
			115					120					125		
Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile
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Gly	Met	Arg	Gly	Lys	Pro	Lys	Val	Ile	Asp	Leu	Thr	Arg	Asn	Glu	Ala
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Lys	Asp	Phe	Tyr	Leu	Tyr	Tyr	Phe	Leu	Met	Gln	Tyr	Pro	Gly	Arg	Ser
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Leu	Val	Phe	Ala	Asn	Ser	Ile	Ser	Cys	Ile	Lys	Arg	Leu	Ser	Gly	Leu
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Gln	Lys	Gln	Arg	Leu	Arg	Asn	Leu	Glu	Gln	Phe	Ala	Arg	Leu	Glu	Asp
225					230					235					240
Cys	Val	Leu	Leu	Ala	Thr	Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Pro
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Lys	Val	Gln	His	Val	Ile	His	Tyr	Gln	Val	Pro	Arg	Thr	Ser	Glu	Ile
			260					265					270		
Tyr	Val	His	Arg	Ser	Gly	Arg	Thr	Ala	Arg	Ala	Thr	Asn	Glu	Gly	Leu
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Thr Lys Tyr Met Asp Val Val Lys Glu Arg Ile Arg Leu Ala Arg Gln
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Ile Glu Lys Ser Glu Tyr Arg Asn Phe Gln Ala Cys Leu His Asn Ser
      340              345              350
Trp Ile Glu Gln Ala Ala Ala Ala Leu Glu Ile Glu Leu Glu Glu Asp
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Met Tyr Lys Gly Gly Lys Ala Asp Gln Gln Glu Glu Arg Arg Arg Gln
      370              375              380
Lys Gln Met Lys Val Leu Lys Lys Glu Leu Arg His Leu Leu Ser Gln
385              390              395              400
Pro Leu Phe Thr Glu Ser Gln Lys Thr Lys Tyr Pro Thr Gln Ser Gly
      405              410              415
Lys Pro Pro Leu Leu Val Ser Ala Pro Ser Lys Ser Glu Ser Ala Leu
      420              425              430
Ser Cys Leu Ser Lys Gln Lys Lys Lys Lys Thr Lys Lys Pro Lys Glu
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 <213> Homo sapiens

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780

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&lt;210&gt; 5442

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5442

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			20					25					30		
Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
		35					40					45			
Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
		50				55				60					
Val	Ala	Lys	Lys	Glu	Asp	Leu	Ile	Ser	Ala	Phe	Gly	Thr	Asp	Asp	Gln
65					70					75				80	
Thr	Glu	Ile	Cys	Lys	Gln	Ile	Leu	Thr	Lys	Gly	Glu	Val	Gln	Val	Ser
			85					90					95		
Asp	Lys	Glu	Arg	His	Thr	Gln	Leu	Glu	Gln	Met	Phe	Arg	Asp	Ile	Ala
			100					105					110		
Thr	Ile	Val	Ala	Asp	Lys	Cys	Val	Asn	Pro	Glu	Thr	Lys	Arg	Pro	Tyr
		115					120					125			
Thr	Val	Ile	Leu	Ile	Glu	Arg	Ala	Met	Lys	Asp	Ile	His	Tyr	Ser	Val

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Lys Thr Asn Lys Ser Thr	Lys Gln Gln Ala Leu	Glu Val Ile Lys Gln		
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Leu Lys Glu Lys Met Lys	Ile Glu Arg Ala His	Met Arg Leu Arg Phe		
	165	170	175	
Ile Leu Pro Val Asn Glu	Gly Lys Lys Leu Lys	Glu Lys Leu Lys Pro		
	180	185	190	
Leu Ile Lys Val Ile Glu	Ser Glu Asp Tyr Gly	Gln Gln Leu Glu Ile		
	195	200	205	
Val Cys Leu Ile Asp Pro	Gly Cys Phe Arg Glu	Ile Asp Glu Leu Ile		
	210	215	220	
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&lt;210&gt; 5443

&lt;211&gt; 2021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5443

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 2021

&lt;210&gt; 5444

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5444

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Leu	Asp	Met	Leu	Asn	Asn	Trp	Asp	Lys	Trp	Met	Ala	Lys	Lys	His	Lys
			20					25					30		
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
			35				40					45			
Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
			50			55				60					
Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
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Leu	Asp	Val	Ile	Glu	Arg	Asp	Leu	His	Arg	Gln	Phe	Pro	Phe	His	Glu



4627

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<211> 107

<212> PRT

<213> Homo sapiens

<400> 5446

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Glu	Ser	Lys	His	Thr	Thr	Cys	Ala	Lys	Val	Lys	Trp	Pro	Gln	Pro	Pro
			20					25					30		
Arg	Lys	Thr	Gly	Trp	Arg	Phe	Leu	Arg	Arg	Ser	Thr	His	Ser	Arg	His
		35					40					45			
Gly	Thr	Gln	Trp	Phe	His	Pro	Gln	Val	Cys	Ser	Asn	Arg	His	His	Ser
	50					55					60				
Pro	Arg	Pro	His	Ala	Asp	Ser	Asp	Thr	Arg	Ala	His	Ser	Pro	Arg	Ser

65		70		75		80									
His	Ala	Asp	Ser	Asp	Met	Arg	Ala	His	Ser	Leu	Ser	His	Asp	Ser	Gln
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 <211> 1444  
 <212> DNA  
 <213> Homo sapiens

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 1444

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 <211> 189  
 <212> PRT  
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 Ala Leu His Ser Ala Leu Gly Gly Thr Lys Lys Lys Lys Lys Thr Ile  
 35 40 45  
 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu  
 50 55 60  
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn  
 65 70 75 80  
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr  
 85 90 95  
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu  
 100 105 110  
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 115 120 125  
 Ile Thr Glu Lys Glu Tyr Lys Thr Tyr Lys Glu Asn Phe Leu Lys Arg  
 130 135 140  
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 240

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&lt;210&gt; 5450

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5450

Ser	Pro	Glu	Glu	Asp	Gln	Arg	Thr	Tyr	Val	Phe	Arg	Ala	Gln	Ser	Ala
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Glu	Met	Lys	Glu	Arg	Gly	Gly	Asn	Gln	Thr	Ser	Gly	Ile	Asp	Phe	Phe
			20					25					30		
Ile	Thr	Gln	Glu	Arg	Ile	Val	Phe	Leu	Asp	Thr	Gln	Pro	Ile	Leu	Ser
			35				40					45			
Pro	Ser	Ile	Leu	Asp	His	Leu	Ile	Asn	Asn	Asp	Arg	Lys	Leu	Pro	Pro
	50					55					60				
Glu	Tyr	Asn	Leu	Pro	His	Thr	Tyr	Val	Glu	Met	Gln	Ser	Leu	Gln	Ile

65					70					75					80
Ala	Ala	Phe	Leu	Phe	Thr	Val	Cys	His	Val	Gly	Ile	Xaa	Val	Gln	Asp
				85					90					95	
Trp	Phe	Thr	Asp	Leu	Ser	Leu	Tyr	Arg	Phe	Leu	Gln	Thr	Ala	Glu	Met
			100					105					110		
Val	Lys	Pro	Ser	Thr	Pro	Ser	Pro	Ser	His	Glu	Ser	Ser	Ser	Ser	Ser
		115					120				125				
Gly	Ser	Asp	Glu	Gly	Thr	Glu	Tyr	Tyr	Pro	His	Leu	Val	Phe	Phe	Gln
	130					135					140				
Asn	Lys	Ala	Arg	Arg	Glu	Asp	Phe	Cys	Pro	Arg	Lys	Leu	Arg	Gln	Met
145					150				155					160	
His	Leu	Met	Ile	Asp	Gln	Leu	Met	Ala	His	Ser	His	Leu	Arg	Tyr	Lys
			165					170					175		
Gly	Thr	Leu	Ser	Met	Leu	Gln	Cys	Asn	Val	Phe	Pro	Gly	Leu	Pro	Pro
		180						185				190			
Asp	Phe	Leu	Asp	Ser	Glu	Val	Asn	Leu	Phe	Leu	Val	Pro	Phe	Met	Asp
	195						200				205				
Ser	Glu	Ala	Glu	Ser	Glu	Asn	Pro	Pro	Arg	Ala	Gly	Pro	Gly	Ser	Ser
	210					215				220					
Pro	Leu	Phe	Ser	Leu	Leu	Pro	Gly	Tyr	Arg	Gly	His	Pro	Ser	Phe	Gln
225					230				235					240	
Ser	Leu	Val	Ser	Lys	Leu	Arg	Ser	Gln	Val	Met	Ser	Met	Ala	Arg	Pro
			245					250					255		
Gln	Leu	Ser	His	Thr	Ile	Leu	Thr	Glu	Lys	Asn	Trp	Phe	His	Tyr	Ala
		260						265			270				
Ala	Arg	Ile	Trp	Asp	Gly	Val	Arg	Lys	Ser	Ser	Ala	Leu	Ala	Glu	Tyr
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Ser	Arg	Leu	Leu	Ala											
	290														

&lt;210&gt; 5451

&lt;211&gt; 1184

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5451

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540

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 1184

&lt;210&gt; 5452

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5452

Met	Ser	Ser	Val	Tyr	Pro	Arg	Pro	Leu	Glu	Gly	Glu	Ser	Arg	Ala	Leu
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Arg	Lys	Gly	Ser	His	Leu	Leu	Ser	Leu	Ala	Glu	Pro	Leu	Pro	Pro	Tyr
		20						25					30		
Ser	Ser	Pro	Glu	Leu	Ser	Val	Ala	Phe	His	His	Ser	Gly	Pro	Ser	Cys
		35					40					45			
Leu	Ser	Pro	Ala	Leu	Ser	Gln	Thr	Thr	Gln	Lys	Ser	Gly	His	Leu	Trp
	50					55					60				
Ala	Pro	Gly	Met	Val	Thr	Glu	Glu	Lys	His	Ala	Val	Pro	Val	Ser	Pro
65					70					75					80
Gly	Phe	Cys	Gln	Lys	Ile	Glu	Gln	Val	Gln	Leu	Thr	His	Cys	Tyr	Cys
			85					90						95	
Arg	Ser	Leu	Lys	Leu	Pro	Gly	Leu	Val	Leu	Asp	Pro	Ser	Arg	Asn	His
		100						105					110		
Gln	Val	Arg	His	Leu	Glu	Pro	Pro	Gly	Glu	Gly	Pro	Pro	Ser	Arg	Ala
	115					120						125			
Leu	Lys	Glu	Leu	His	Glu	Ile	Arg	Asn	Cys	Leu	Met	Lys	Cys	Ile	Ser
	130					135					140				
Leu	Tyr	Leu	Glu	Asp	Glu	Ala	Gln	Thr	Pro	Thr	Pro	Leu	Ser	Pro	Pro
145					150					155					160
Gly	Leu	Gly	Met	Ser	Pro	Ala	Ala	Arg	Pro	Arg	Ser	Phe	Pro	Gly	Gly
			165					170						175	
Leu	Gly	Glu	Val	Gly	Ala	Gly	Thr	Ile	Ser	Val	Pro	Ser	Thr	Leu	Thr
		180						185					190		
Pro	Ser	Thr	Ser	Glu	Thr	Thr	Leu	Pro	Gln	Pro	Asp	Thr	Glu		

195

200

205

&lt;210&gt; 5453

&lt;211&gt; 1974

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5453

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120

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1080

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 1860  
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<210> 5454

<211> 320

<212> PRT

<213> Homo sapiens

<400> 5454

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Val	Tyr	Arg	Ser	Arg	Asp	Phe	Leu	Val	Val	Asn	Lys	His	Trp	Asp	Val
			20					25					30		
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
		35					40					45			
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
	50					55					60				
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
65					70					75				80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
			85						90					95	
Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
			100						105					110	
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
		115					120					125			
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
	130					135					140				
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
145					150					155				160	
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
			165						170					175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
		180						185					190		
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
		195					200					205			
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210		215		220
Thr Asp Thr Glu Cys Val	Glu Val Cys Thr Pro Asp Pro Phe Leu Pro			
225		230	235	240
Ser Leu Asp Ala Cys Trp	Ser Pro His Thr Leu Leu Gln Ser Leu Asp			
	245	250	255	
Gln Leu Val Gln Ala Leu	Arg Ala Thr Pro Asp Pro Asp Pro Glu Asp			
	260	265	270	
Arg Gly Pro Arg Pro Gly	Ser Pro Ser Ala Leu Leu Pro Gly Pro Gly			
	275	280	285	
Arg Pro Pro Pro Pro Pro	Thr Lys Pro Pro Glu Thr Glu Ala Gln Arg			
	290	295	300	
Gly Pro Cys Leu Gln Trp	Leu Ser Glu Trp Thr Leu Glu Pro Asp Ser			
305	310	315	320	

&lt;210&gt; 5455

&lt;211&gt; 975

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5455

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975

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<210> 5456  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

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 Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr  
 35 40 45  
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr  
 50 55 60  
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala  
 65 70 75 80  
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe  
 85 90 95  
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser  
 100 105 110  
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His  
 115 120 125  
 Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly  
 130 135 140  
 Ala Leu Ala Ala Ala  
 145

<210> 5457  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

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<210> 5458  
 <211> 81  
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<213> Homo sapiens

<400> 5458

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Asp Ser Arg Asp Gly Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
          20           25           30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
          35           40           45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
          50           55           60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
65           70           75           80
Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120
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300
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420
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960

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 1468

<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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		20					25					30			
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
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Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
	50				55					60					
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70				75					80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
		85						90					95		
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
		100					105					110			
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
	115					120						125			
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
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<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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120  
ccgggaggca gcaacgcaag gagccaaaat agtttctttg ccggaatgct ttaattctcc  
180  
atatggagcg aaatattttc ctgaatatgc agagaaaatt cctggtgaat ccacacagaa  
240  
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300  
aaggctctat ccctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc  
360  
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420  
gaaaaattac atttcaagaa tctaaaacat tgagtccggg tgatagtttc tccacatttg  
480  
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540  
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600  
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720  
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780  
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900  
gtgatcatta tgtcatggag gatttccct gccacaccat gctgtaggga gtttaactttt  
960  
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1020  
gacatgcggt ttgcagagct tgcacaaatac tacgcacaga gaggctgcca gctgttggtg  
1080  
tatccaggag cttttaatct gaccactgga ccagcccatt gggagttact tcagcgaagc  
1140  
cgggctgttg ataatacaggt gtatgtggcc acagcctctc ctgcccggga tgacaaagcc  
1200  
tcctatgttg cctggggaca cagcacctg gtgaaccctt ggggggaggt tctagccaaa  
1260  
gctggcacag aagaagcaat cgtgtattca gacatagacc tgaagaagct ggctgaaata  
1320  
cgccagcaaa tccccgtttt tagacagaag cgatcagacc tctatgctgt ggagatgaaa  
1380  
aagccctaaa gtttatgttt ctaatgtgtc acagaatagg acgatatgat tctacaacat  
1440  
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1680

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1725

<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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Phe	His	Leu	Cys	Ile	Phe	Cys	Leu	Glu	Thr	Ala	Tyr	Cys	Arg	Val	Gly
			20					25					30		
Leu	Gly	Ile	Cys	Tyr	Asp	Met	Arg	Phe	Ala	Glu	Leu	Ala	Gln	Ile	Tyr
		35					40					45			
Ala	Gln	Arg	Gly	Cys	Gln	Leu	Leu	Val	Tyr	Pro	Gly	Ala	Phe	Asn	Leu
	50					55					60				
Thr	Thr	Gly	Pro	Ala	His	Trp	Glu	Leu	Leu	Gln	Arg	Ser	Arg	Ala	Val
65					70					75				80	
Asp	Asn	Gln	Val	Tyr	Val	Ala	Thr	Ala	Ser	Pro	Ala	Arg	Asp	Asp	Lys
			85						90				95		
Ala	Ser	Tyr	Val	Ala	Trp	Gly	His	Ser	Thr	Val	Val	Asn	Pro	Trp	Gly
			100					105				110			
Glu	Val	Leu	Ala	Lys	Ala	Gly	Thr	Glu	Glu	Ala	Ile	Val	Tyr	Ser	Asp
		115				120					125				
Ile	Asp	Leu	Lys	Lys	Leu	Ala	Glu	Ile	Arg	Gln	Gln	Ile	Pro	Val	Phe
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Arg	Gln	Lys	Arg	Ser	Asp	Leu	Tyr	Ala	Val	Glu	Met	Lys	Lys	Pro	
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<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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 120  
 gacaaaggcg agggacaaga gagagttaac atctagacag tggaaaaagc catggtgtgt  
 180  
 ggtttctggg aaccaccaac acttgcaggt ttagcttttt cccaggggtg actacaagaa  
 240  
 agaaaacat gtttttgcaa gattaaaatg tggttgagtg tgcttaaatt aaccatcccc  
 300  
 atttttatca tttttccacc atcacttcag ggttttaaga gtcagtgtc acctgggagg  
 360  
 agctggtagt acattttgct tcttagaaag ctaagtcttg gggtccgtct gatttttaggt  
 420  
 tccaggaact tcctgagaac accgatcgc agagggtaat tttctggagt ttgttttgca  
 480  
 gggatagctg ggagtatggc caccctgctc cagcatgcgg taatgaatcc agcagaagtg  
 540

gtgaagcagc gcttgcagat gtacaactcg cagcaccggt cagcaatcag ctgcatccgg  
 600  
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 660  
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 720  
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 780  
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 792

<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

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1				5					10					15	
Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
			20					25					30		
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
		35					40					45			
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
	50					55					60				
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
65					70					75				80	
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
				85					90					95	
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	
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<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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 120  
 ggggtgctgct ggagggagga cagacggaca ggcggcctgg gtggccggcc ccagaaaggc  
 180  
 tggcgtggat gttcgagatg agccaccagc gaagccagta gggatgtctg ggccgtcctg  
 240  
 gtgggattgt ctgggacatc gccaccaaca cgggtgtcaga gccatcagtg gggacatcgg  
 300  
 agggggccacc accaggtggg gtatatccaa caggctagaa cccctgaggc ttgagaggcc  
 360  
 aacccccggc aggagacctc cctgacccc tctgtgcct ctctgtggg accctccagt  
 420  
 agacacacca gatgaggaca cccaggaggc ctctcccag gacaggaggc agctgcctgg  
 480



gcagccacgc agtgcac  
497

<210> 5466  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 5466  
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Asp Gly Gln Ala Ala Trp Val Ala Gly Pro Arg Lys Ala Gly Val Asp  
20 25 30  
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser  
35 40 45  
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile  
50 55 60  
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg  
65 70 75 80  
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro  
85 90 95  
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro  
100 105 110  
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro  
115 120 125  
Gly Gln Pro Arg Ser Ala  
130

<210> 5467  
<211> 1329  
<212> DNA  
<213> Homo sapiens

<400> 5467  
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120  
cccgatcca gcttcttgga cttgggggat ctgaacgagt cggacttcct caacaatgag  
180  
cactttcctg agcacctgga ccactttacg gagaacatgg aggacttctc caatgacctg  
240  
ttcagcagct tctttgatga ccctgtgctg gatgagaaga gccctctatt ggacatggaa  
300  
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360  
gcgccccaga gcccccttgt gcccatcaag atggaggaca ccaccaaga tgcagagcat  
420  
ggagcatggg cgctgggaca caaactgtgc tccatcatgg tgaagcagga gcagagcccc  
480  
gagctgcccc tggaccctct ggctgcccc tggccatgg ctgccgcggc cgccatggcc  
540  
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600

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 660  
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 720  
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 780  
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 840  
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 1020  
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 1080  
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 1140  
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 1200  
 gggttccttt ctggcccaaa gtaggtccaa gccctttagt ttatttcgcc acctgctgta  
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 1329

<210> 5468  
 <211> 363  
 <212> PRT  
 <213> Homo sapiens

<400> 5468  
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 Ser Ser Phe Leu Asp Leu Gly Asp Leu Asn Glu Ser Asp Phe Leu Asn  
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 Asn Ala His Phe Pro Glu His Leu Asp His Phe Thr Glu Asn Met Glu  
 35 40 45  
 Asp Phe Ser Asn Asp Leu Phe Ser Ser Phe Phe Asp Asp Pro Val Leu  
 50 55 60  
 Asp Glu Lys Ser Pro Leu Leu Asp Met Glu Leu Asp Ser Pro Thr Pro  
 65 70 75 80  
 Gly Ile Gln Ala Glu His Ser Tyr Ser Leu Ser Gly Asp Ser Ala Pro  
 85 90 95  
 Gln Ser Pro Leu Val Pro Ile Lys Met Glu Asp Thr Thr Gln Asp Ala  
 100 105 110  
 Glu His Gly Ala Trp Ala Leu Gly His Lys Leu Cys Ser Ile Met Val  
 115 120 125  
 Lys Gln Glu Gln Ser Pro Glu Leu Pro Val Asp Pro Leu Ala Ala Pro  
 130 135 140  
 Ser Ala Met Ala Ala Ala Ala Met Ala Thr Thr Pro Leu Leu Gly  
 145 150 155 160  
 Leu Ser Pro Leu Ser Arg Leu Pro Ile Pro His Gln Ala Pro Gly Glu

				165				170					175		
Met	Thr	Gln	Leu	Pro	Val	Ile	Lys	Ala	Glu	Pro	Leu	Glu	Val	Asn	Gln
			180					185					190		
Phe	Leu	Lys	Val	Thr	Pro	Glu	Asp	Leu	Val	Gln	Met	Pro	Pro	Thr	Pro
		195					200					205			
Pro	Ser	Ser	His	Gly	Ser	Asp	Ser	Asp	Gly	Ser	Gln	Ser	Pro	Arg	Ser
	210					215					220				
Leu	Pro	Pro	Ser	Ser	Pro	Val	Arg	Pro	Met	Ala	Arg	Ser	Ser	Thr	Ala
225					230					235					240
Ile	Ser	Ser	Ser	Pro	Leu	Leu	Thr	Ala	Pro	His	Lys	Leu	Gln	Gly	Thr
				245					250					255	
Ser	Gly	Pro	Leu	Val	Leu	Thr	Glu	Glu	Glu	Lys	Arg	Thr	Leu	Ile	Ala
			260					265					270		
Glu	Gly	Tyr	Pro	Ile	Pro	Thr	Lys	Leu	Pro	Leu	Thr	Lys	Ser	Glu	Glu
		275					280					285			
Lys	Ala	Leu	Lys	Lys	Ile	Arg	Arg	Lys	Ile	Lys	Asn	Lys	Ile	Ser	Ala
	290					295					300				
Gln	Glu	Ser	Arg	Arg	Lys	Lys	Lys	Glu	Tyr	Met	Asp	Ser	Leu	Glu	Lys
305					310					315					320
Lys	Val	Glu	Ser	Cys	Ser	Thr	Glu	Asn	Leu	Glu	Leu	Arg	Lys	Lys	Val
				325					330					335	
Glu	Thr	Leu	Glu	Asn	Ala	Asn	Ser	Phe	Ser	Ser	Gly	Ile	Gln	Pro	Leu
			340					345					350		
Leu	Cys	Ser	Leu	Ile	Gly	Leu	Glu	Asn	Pro	Thr					
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<210> 5469
<211> 1292
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
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420
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480
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540
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ttagagcagg agcaggcccc gagggacgcc ctgaagcagc gggcggaaca gagcatctct
660
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gaagagcccg gctgggagga ggaggaagag gagctcatgg gcatttcacc catatctcca  
 720  
 aaagaggcaa aggttcctgt ggccaaaatt tctacattcc ctgaaggaga acctggcccc  
 780  
 cagagcccct gtgaagagaa tctggtgact tcagttgagc cccagcaga ggtgactcca  
 840  
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 960  
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 1020  
 ctaacgcctg ctggccacac cggcggccca gagcccaggc ctccagccag agtagagact  
 1080  
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 1200  
 aaagactttg acttggacat gactgaagag gaggtgcaga tggcactttc caaagtggat  
 1260  
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 1292

&lt;210&gt; 5470

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5470

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Trp	Leu	Gln	Gln	Ser	Tyr	Gln	Ala	Val	Lys	Glu	Lys	Ser	Ser	Glu	Ala
				20					25					30	
Leu	Glu	Phe	Met	Lys	Arg	Asp	Leu	Thr	Glu	Phe	Thr	Gln	Val	Val	Gln
				35					40					45	
His	Asp	Thr	Ala	Cys	Thr	Ile	Ala	Ala	Thr	Ala	Ser	Val	Val	Lys	Glu
				50					55					60	
Lys	Leu	Ala	Thr	Glu	Gly	Ser	Ser	Gly	Ala	Thr	Glu	Lys	Met	Lys	Lys
Gly	Leu	Ser	Asp	Phe	Leu	Gly	Val	Ile	Ser	Asp	Thr	Phe	Ala	Pro	Ser
				85					90					95	
Pro	Asp	Lys	Thr	Ile	Asp	Cys	Asp	Val	Ile	Thr	Leu	Met	Gly	Thr	Pro
				100					105					110	
Ser	Gly	Thr	Ala	Glu	Pro	Tyr	Asp	Gly	Thr	Lys	Ala	Arg	Leu	Tyr	Ser
				115					120					125	
Leu	Gln	Ser	Asp	Pro	Ala	Thr	Tyr	Cys	Asn	Glu	Pro	Asp	Gly	Pro	Pro
				130					135					140	
Glu	Leu	Phe	Asp	Ala	Trp	Leu	Ser	Gln	Phe	Cys	Leu	Glu	Glu	Lys	Lys
Gly	Glu	Ile	Ser	Glu	Leu	Leu	Val	Gly	Ser	Pro	Ser	Ile	Arg	Ala	Leu
				165					170					175	
Tyr	Thr	Lys	Met	Val	Pro	Ala	Ala	Val	Ser	His	Ser	Glu	Phe	Trp	His
				180					185					190	
Arg	Tyr	Phe	Tyr	Lys	Val	His	Gln	Leu	Glu	Gln	Glu	Gln	Ala	Arg	Arg

195 200 205  
 Asp Ala Leu Lys Gln Arg Ala Glu Gln Ser Ile Ser Glu Glu Pro Gly  
 210 215 220  
 Trp Glu Glu Glu Glu Glu Glu Leu Met Gly Ile Ser Pro Ile Ser Pro  
 225 230 235 240  
 Lys Glu Ala Lys Val Pro Val Ala Lys Ile Ser Thr Phe Pro Glu Gly  
 245 250 255  
 Glu Pro Gly Pro Gln Ser Pro Cys Glu Glu Asn Leu Val Thr Ser Val  
 260 265 270  
 Glu Pro Pro Ala Glu Val Thr Pro Ser Glu Ser Ser Glu Ser Ile Ser  
 275 280 285  
 Leu Val Thr Gln Ile Ala Asn Pro Ala Thr Ala Pro Glu Ala Arg Val  
 290 295 300  
 Leu Pro Lys Asp Leu Ser Gln Lys Leu Leu Glu Ala Ser Leu Glu Glu  
 305 310 315 320  
 Gln Gly Leu Ala Val Asp Val Gly Glu Thr Gly Pro Ser Pro Pro Ile  
 325 330 335  
 His Ser Lys Pro Leu Thr Pro Ala Gly His Thr Gly Gly Pro Glu Pro  
 340 345 350  
 Arg Pro Pro Ala Arg Val Glu Thr Leu Arg Glu Glu Ala Pro Thr Asp  
 355 360 365  
 Leu Arg Val Phe Glu Leu Asn Ser Asp Ser Gly Lys Ser Thr Pro Ser  
 370 375 380  
 Asn Asn Gly Lys Lys Gly Ser Ser Thr Asp Ile Ser Glu Asp Trp Glu  
 385 390 395 400  
 Lys Asp Phe Asp Leu Asp Met Thr Glu Glu Glu Val Gln Met Ala Leu  
 405 410 415  
 Ser Lys Val Asp Ala Ser Gly Glu Leu Lys Met  
 420 425

&lt;210&gt; 5471

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5471

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 120  
 ttgccaggtg tggcgcacat gtgtgcccgt gggcagagta cagagacaca agcttggtgtg  
 180  
 gacacgaatg tgtagctatg tgcgagtgc cacggagtgg tgagtgcagg gaccccaggc  
 240  
 cggcctgcgt cgggtgcgcag ggcataatagg ggcgtgcacg cagtcttgga ggtgtgtgca  
 300  
 cagagccccc ggcacccgcg tgtgtgcaaa gacacaggaa cccgtctgcg tggcgtgtg  
 360  
 tgtgcaaccc aaggaggtgg gcgcttgac tccaaagtgt gcgcttatcc ggatgtggat  
 420  
 gtggggggcag ccgggggacag ggctgggtgt gcgtgactcg ggtgtgccgg gaccacaga  
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 534

<210> 5472  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 5472  
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 35 40 45  
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr  
 50 55 60  
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln  
 65 70 75 80  
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile  
 85 90 95  
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His  
 100 105 110  
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys  
 115 120 125  
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser  
 130 135 140  
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<210> 5473  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

<400> 5473  
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 180  
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 300  
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 360  
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 420  
 gtgtggacat ctccatacac ttggtggact gatgcctgtt ttgcacactc gtcacttcca  
 480  
 gggcactttg gaacttgagg tgggagactg gaaggataat aggaggtacc ggatttttgc  
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ttttgatcac gacctcttta gctttgcaga tttgatcttt gggaagtggc ctgtggttct  
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<210> 5474  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 5474  
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 Ser Pro Ser Pro Gly Ile Arg Ser Ile Met Ser Ser Ala Ile Ala Tyr  
 35 40 45  
 Leu Cys Gly His Leu His Thr Leu Gly Gly Leu Met Pro Val Leu His  
 50 55 60  
 Thr Arg His Phe Gln Gly Thr Leu Glu Leu Glu Val Gly Asp Trp Lys  
 65 70 75 80  
 Asp Asn Arg Arg Tyr Arg Ile Phe Ala Phe Asp His Asp Leu Phe Ser  
 85 90 95  
 Phe Ala Asp Leu Ile Phe Gly Lys Trp Pro Val Val Leu Ile Thr Asn  
 100 105 110  
 Pro Lys Ser Leu Leu Tyr Ser Cys Gly Glu His Glu Pro Leu Glu Arg  
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 Leu Leu His Ser Thr His Ile Arg Leu Val Thr  
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<210> 5475  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 5475  
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 aacaaccccc acgccagcta cagcgcccct ccgccagtga gctcctccga cagcgaggcc  
 180  
 cccgaggcca accccgccga cggcagtgac gctgacgagg acgatgagga ccgggggggtc  
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 gtctcgaaac gagcccgaag ggctccagc gacctggatc aggccagcgt gtcccatcc  
 420  
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 480

cctgagaaga aagcagcggc cggggcgcca cggagggggcc ctctggggggg acggaaaaaa  
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 aagaaggcgc cgtcagcctc cgactccgac tccaaggccg attcggacgg ggccaagcct  
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<210> 5476  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 5476  
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 35 40 45  
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn  
 50 55 60  
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val  
 65 70 75 80  
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu  
 85 90 95  
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg  
 100 105 110  
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala  
 115 120 125  
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn  
 130 135 140  
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr  
 145 150 155 160  
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly  
 165 170 175  
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<210> 5477  
 <211> 727  
 <212> DNA  
 <213> Homo sapiens

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 420  
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<210> 5478  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 5478  
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 35 40 45  
 Lys Thr Trp Pro Leu Thr Cys Arg Pro Pro Thr Gln Leu Ala Gly Trp  
 50 55 60  
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 Thr Ser Leu Ser Ala Leu Ser Ala Arg Pro Pro Pro Asp Ser Ser Ser  
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 Leu Ser Pro

<210> 5479  
 <211> 1386  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5480

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5480

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			20					25					30		
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

		35					40					45				
Glu	Ala	Glu	Ala	Arg	Ala	Glu	Arg	Glu	Ala	Glu	Ala	Arg	Arg	Arg	Glu	
	50					55					60					
Glu	Gln	Glu	Ala	Arg	Glu	Lys	Ala	Gln	Ala	Glu	Gln	Glu	Glu	Gln	Glu	
65					70					75					80	
Arg	Leu	Gln	Lys	Gln	Lys	Glu	Glu	Ala	Glu	Ala	Arg	Ser	Arg	Glu	Glu	
				85					90					95		
Ala	Glu	Arg	Gln	Arg	Leu	Glu	Arg	Glu	Lys	His	Phe	Gln	Gln	Gln	Glu	
			100					105						110		
Gln	Glu	Arg	Gln	Glu	Arg	Arg	Lys	Arg	Leu	Glu	Glu	Ile	Met	Lys	Arg	
		115					120					125				
Thr	Arg	Lys	Ser	Glu	Val	Ser	Glu	Thr	Lys	Gln	Lys	Gln	Asp	Ser	Lys	
	130					135					140					
Glu	Ala	Asn	Ala	Asn	Gly	Ser	Ser	Pro	Glu	Pro	Val	Lys	Ala	Val	Glu	
145					150					155					160	
Ala	Arg	Ser	Pro	Gly	Leu	Gln	Lys	Glu	Ala	Val	Gln	Lys	Glu	Glu	Pro	
				165					170					175		
Ile	Pro	Gln	Glu	Pro	Gln	Trp	Ser	Leu	Pro	Ser	Lys	Glu	Leu	Pro	Ala	
			180					185					190			
Ser	Leu	Val	Asn	Gly	Leu	Gln	Pro	Leu	Pro	Ala	His	Gln	Glu	Asn	Gly	
		195					200				205					
Phe	Ser	Thr	Asn	Gly	Pro	Ser	Gly	Asp	Lys	Ser	Leu	Ser	Arg	Thr	Pro	
	210					215					220					
Glu	Thr	Leu	Leu	Pro	Phe	Ala	Glu	Ala	Glu	Ala	Phe	Leu	Lys	Lys	Ala	
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<210> 5481
<211> 1513
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5482

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5482

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Phe	Leu	Tyr	Phe	Ala	Tyr	Gly	Ser	Asn	Leu	Leu	Thr	Glu	Arg	Ile	His
			20					25					30		
Leu	Arg	Asn	Pro	Ser	Ala	Ala	Phe	Phe	Cys	Val	Ala	Arg	Leu	Gln	Asp
		35					40					45			
Phe	Lys	Leu	Asp	Phe	Gly	Asn	Ser	Gln	Gly	Lys	Thr	Ser	Gln	Thr	Trp
	50					55					60				
His	Gly	Gly	Ile	Ala	Thr	Ile	Phe	Gln	Ser	Pro	Gly	Asp	Glu	Leu	Trp
65					70				75					80	
Gly	Val	Val	Trp	Lys	Met	Asn	Lys	Ser	Asn	Leu	Asn	Ser	Leu	Asp	Glu
				85				90					95		
Gln	Glu	Gly	Val	Lys	Ser	Gly	Met	Tyr	Val	Val	Ile	Glu	Val	Lys	Val
			100					105					110		
Ala	Thr	Gln	Glu	Gly	Lys	Glu	Ile	Thr	Cys	Arg	Ser	Tyr	Leu	Met	Thr

		115					120					125				
Asn	Tyr	Glu	Ser	Ala	Pro	Pro	Ser	Pro	Gln	Tyr	Lys	Lys	Ile	Ile	Cys	
		130					135					140				
Met	Gly	Ala	Lys	Glu	Asn	Gly	Leu	Pro	Leu	Glu	Tyr	Gln	Glu	Lys	Leu	
145						150					155					160
Lys	Ala	Ile	Glu	Pro	Asn	Asp	Tyr	Thr	Gly	Lys	Val	Ser	Glu	Glu	Ile	
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<211> 1552
<212> DNA
<213> Homo sapiens
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<210> 5484  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 5484  
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 Glu Leu Arg Gly Gly Phe Asp Trp Ser Leu His Phe Gln Trp Glu Gln  
 50 55 60  
 Leu Ser Pro Glu Gln Lys Ala Arg Arg Leu Asp Pro Thr Glu Pro Ile  
 65 70 75 80  
 Arg Thr Pro Ile Ile Ala Gly Gly Leu Phe Val Ile Asp Lys Ala Trp  
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 Phe Asp Tyr Leu Gly Lys Tyr Asp Met Asp Met Asp Ile Trp Gly Gly  
 100 105 110  
 Glu Asn Phe Glu Ile Ser Phe Arg Val Trp Met Cys Gly Gly Ser Leu  
 115 120 125  
 Glu Ile Val Pro Cys Ser Arg Val Gly His Val Phe Arg Lys Lys His  
 130 135 140  
 Pro Tyr Val Phe Pro Asp Gly Asn Ala Asn Thr Tyr Ile Lys Asn Thr  
 145 150 155 160  
 Lys Arg Thr Ala Glu Val Trp Met Asp Glu Tyr Lys Gln Tyr Tyr Tyr  
 165 170 175  
 Ala Ala Arg Pro Phe Ala Leu Glu Arg Pro Phe Gly Asn Val Glu Ser  
 180 185 190  
 Arg Leu Asp Leu Arg Lys Asn Leu Arg Cys Gln Ser Phe Lys Trp Tyr  
 195 200 205  
 Leu Glu Asn Ile Tyr Pro Glu Leu Ser Ile Pro Lys Glu Phe Ser Ile  
 210 215 220  
 Gln Lys Gly Asn Ile Arg Gln Arg Gln Lys Cys Leu Glu Ser Gln Arg  
 225 230 235 240  
 Gln Asn Asn Gln Glu Thr Pro Asn Leu Lys Leu Ser Pro Cys Ala Lys  
 245 250 255  
 Val Lys Gly Glu Asp Ala Lys Ser Gln Val Trp Ala Phe Thr Tyr Thr



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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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			20					25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
			35				40					45			
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser	Lys	Ser	Arg	Ser
			50			55					60				
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4667

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&lt;210&gt; 5493

&lt;211&gt; 6538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5493

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&lt;210&gt; 5494

&lt;211&gt; 1278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5494

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Cys	Pro	Ser	Cys	Phe	Tyr	Asn	Leu	Leu	Asn	Leu	Phe	Cys	Glu	Leu	Thr
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Tyr	Val	Asp	Pro	Val	Thr	Asn	Gln	Thr	Lys	Thr	Asn	Val	Lys	Glu	Leu
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Phe	Ser	Asp	Phe	Pro	Val	His
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Lys	Gly	Cys	Asp	Glu	Ser	Val
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Ser	Ser	Gln	Ala	Arg	Leu	Glu
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Pro	Phe	Phe	Arg	Thr	Glu	Gln
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Lys	His	Ile	Tyr	Gln	Pro	Tyr
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Pro	Pro	Leu	Asp	Ile	Gln	Ile
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&lt;210&gt; 5495

&lt;211&gt; 2414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5495

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&lt;210&gt; 5496

&lt;211&gt; 345

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5496

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Leu	Asp	Val	Asp	Thr	Ala	Ala	Gly	Gly	Phe	Gln	Gln	Arg	Gln	Gly	Leu
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Lys	Tyr	Cys	Leu	Pro	Leu	Thr	Phe	Cys	Ile	His	Thr	Gly	Leu	Ser	Gln
65					70					75					80
Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe
			85					90						95	
Tyr	Gln	Cys	Pro	Asp	Gln	Met	Ala	Arg	Asn	Pro	Ala	Ala	Ile	Asp	Met
			100					105					110		
Phe	Ile	Ile	Gly	Ala	Thr	Phe	Thr	Asp	Trp	Phe	Thr	Ser	Tyr	Val	Lys
		115					120					125			
Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg
	130					135					140				
Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val
145					150					155					160
Ser	Val	Ser	Thr	Ser	Phe	Leu	Pro	Glu	Leu	Ser	Ser	Val	His	Pro	Pro
			165					170						175	
His	Tyr	Phe	Phe	Thr	Tyr	Arg	Ile	Arg	Ile	Glu	Met	Ser	Lys	Asp	Ala
			180					185					190		
Leu	Pro	Glu	Lys	Ala	Cys	Gln	Leu	Asp	Ser	Arg	Tyr	Trp	Arg	Ile	Thr
		195				200						205			
Asn	Ala	Lys	Gly	Asp	Val	Glu	Val	Gln	Gly	Pro	Gly	Val	Val	Gly	
	210					215				220					
Glu	Phe	Pro	Ile	Ile	Ser	Pro	Gly	Arg	Val	Tyr	Glu	Tyr	Thr	Ser	Cys
225					230					235					240
Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe
			245					250						255	
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<210> 5498  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 5498  
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 His Pro Pro Ala Phe Ala Pro Arg Thr Leu Arg Met Ala Gln Leu Val  
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 Ala Gln Leu Trp Trp Ser Ser Pro Phe Ile His Ser Pro Gly Glu Thr  
 35 40 45  
 Asn Ile Pro His Thr Leu Thr Glu Pro His Ser Val Pro Gly Trp Cys  
 50 55 60  
 Trp Asp Thr Leu Arg Arg His Gly Ala Gly Gln Gly His Pro Gly Met  
 65 70 75 80  
 Ala Arg Ser Gly Thr Gly Glu Gly Gln Arg Glu Gly Asp Ile Glu Arg  
 85 90 95  
 Glu Glu Asp Glu Glu Glu Gly Asn Arg Ser Arg Lys Ser Arg Asp Ser  
 100 105 110  
 Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp  
 115 120 125  
 Pro Ser Ala Gly Ala Ser Glu Lys Ser Arg Asn Pro Ser Arg Met Gly  
 130 135 140  
 Thr Trp Gly Val Asn Phe  
 145 150

<210> 5499  
 <211> 1918  
 <212> DNA  
 <213> Homo sapiens

<400> 5499  
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 180  
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 420  
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 480  
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ggggaccatg gaattgtgga cattgcacat aattcagact gtgaaccaa aagtaagctc  
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 720  
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 780  
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 840  
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 900  
 atgaaggaga atgcaaagca tcggaaccag tacaaattta tcttactgga aaacctgact  
 960  
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 1080  
 gtcattggtg tgnctgtgtg tggcatgcag gtgtaccaag caggcagtgg gcagctcatg  
 1140  
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 1200  
 cagttcttcc acaatgggcg gtacctgcgc cgtgaactcc tgggccctgt gctcaagaag  
 1260  
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 1440  
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 1800  
 ttcaacattc cacatttgat gatgatacct ctttcttccc tgagtgtata tgttctaata  
 1860  
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 1918

<210> 5500

<211> 426

<212> PRT

<213> Homo sapiens

<400> 5500

Met	Ser	Pro	Ala	Phe	Arg	Ala	Met	Asp	Val	Glu	Pro	Arg	Ala	Lys	Gly
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Val	Leu	Leu	Glu	Pro	Phe	Val	His	Gln	Val	Gly	Gly	His	Ser	Cys	Val

[illegible]

<210> 5501

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5501

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120
tgaagcgggg acaaaacccat gcagctcaga ggtccctgtg ggggctgggg gagctgccct
180
gcaggtcttg gcacatgcac agcaggctcc ccatagcttt gtcaccacaa agggcactgt
240
tctattcaca gcacctcttg cttctgcctg gcaactgtgt ctccctgtgc tatatttaat
300
tccaccagca aagctggcga ggcaggggcc agccctgaag gagatctcct tgcctgacct
360
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420
cagtgccatg ggtgagccga gcagctgtga ggtgggtggg gcagggtgtg agcccacgcc
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568

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<210> 5502

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5502

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Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
			20					25					30		
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
		35					40					45			
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
	50					55				60					
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65				70					75					80	
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
			85					90					95		
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
			100					105					110		

<210> 5503

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 5503

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60

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300  
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1380  
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1440  
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1500  
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1560  
agagggttaa ctgagaggag cacagagtgg tacaggagat ggggatgaaa gggataaggg  
1620  
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1679

<210> 5504  
 <211> 392  
 <212> PRT  
 <213> Homo sapiens

<400> 5504  
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 Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Pro Ala Val  
 35 40 45  
 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro  
 50 55 60  
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro  
 65 70 75 80  
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile  
 85 90 95  
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn  
 100 105 110  
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala  
 115 120 125  
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys  
 130 135 140  
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg  
 145 150 155 160  
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys  
 165 170 175  
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile  
 180 185 190  
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala  
 195 200 205  
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly  
 210 215 220  
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu  
 225 230 235 240  
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn  
 245 250 255  
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser  
 260 265 270  
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser  
 275 280 285  
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro  
 290 295 300  
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu  
 305 310 315 320  
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala  
 325 330 335  
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg  
 340 345 350  
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met  
 355 360 365  
 Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

370 375 380  
 Pro Cys Gly Ser Trp Gly Thr Arg  
 385 390

<210> 5505  
 <211> 1099  
 <212> DNA  
 <213> Homo sapiens

<400> 5505  
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 180  
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 240  
 ttcatactg aggactggga ccagcccgtg gccgactgga agatcttcta cttcttacgg  
 300  
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 360  
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 480  
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 780  
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 960  
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 1020  
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 1080  
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 1099

<210> 5506  
 <211> 280  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5506

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 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala  
 35 40 45  
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp  
 50 55 60  
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly  
 65 70 75 80  
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe  
 85 90 95  
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala  
 100 105 110  
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu  
 115 120 125  
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn  
 130 135 140  
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Tyr Thr Cys Leu Lys  
 145 150 155 160  
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu  
 165 170 175  
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg  
 180 185 190  
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala  
 195 200 205  
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln  
 210 215 220  
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn  
 225 230 235 240  
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp  
 245 250 255  
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser  
 260 265 270  
 Ile Thr Ile Gly Pro Pro Leu Pro  
 275 280

&lt;210&gt; 5507

&lt;211&gt; 1658

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5507

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 120  
 aagcaatttc tcacctttga caaacaggctc cttcgattct atgcaatctg ggatgataca  
 180  
 gacagcatgt atggtgaatg tcggacctac atcattcatt actatcttat ggatgatacg  
 240  
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aaccgccagc gtgtgcccaa agttttggtg gaaaatgcaa agaacttccc tcagtgtgtg  
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ctagaaatct ctgaccaaga agtggttgga tggatatactg ctaaagactt cattgttggg  
420  
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480  
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gaaccacctc cagtaaaaca ggagttgcct ccttataacg gttttggact agtgggaagat  
600  
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660  
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720  
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1140  
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1620  
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1658

&lt;210&gt; 5508

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5508

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		20						25					30		
Thr	Pro	Ser	Asp	Phe	Asp	Gln	Leu	Lys	Gln	Phe	Leu	Thr	Phe	Asp	Lys
		35					40					45			
Gln	Val	Leu	Arg	Phe	Tyr	Ala	Ile	Trp	Asp	Asp	Thr	Asp	Ser	Met	Tyr
	50					55					60				
Gly	Glu	Cys	Arg	Thr	Tyr	Ile	Ile	His	Tyr	Tyr	Leu	Met	Asp	Asp	Thr
65					70					75					80
Val	Glu	Ile	Arg	Glu	Val	His	Glu	Arg	Asn	Asp	Gly	Arg	Asp	Pro	Phe
			85						90					95	
Pro	Leu	Leu	Met	Asn	Arg	Gln	Arg	Val	Pro	Lys	Val	Leu	Val	Glu	Asn
			100					105					110		
Ala	Lys	Asn	Phe	Pro	Gln	Cys	Val	Leu	Glu	Ile	Ser	Asp	Gln	Glu	Val
		115					120					125			
Leu	Glu	Trp	Tyr	Thr	Ala	Lys	Asp	Phe	Ile	Val	Gly	Lys	Ser	Leu	Thr
	130					135					140				
Ile	Leu	Gly	Arg	Thr	Phe	Phe	Ile	Tyr	Asp	Cys	Asp	Pro	Phe	Thr	Arg
145					150					155					160
Arg	Tyr	Tyr	Lys	Glu	Lys	Phe	Gly	Ile	Thr	Asp	Leu	Pro	Arg	Ile	Asp
			165						170					175	
Val	Ser	Lys	Arg	Glu	Pro	Pro	Pro	Val	Lys	Gln	Glu	Leu	Pro	Pro	Tyr
			180					185					190		
Asn	Gly	Phe	Gly	Leu	Val	Glu	Asp	Ser	Ala	Gln	Asn	Cys	Phe	Ala	Leu
		195					200					205			
Ile	Pro	Lys	Ala	Pro	Lys	Lys	Asp	Val	Ile	Lys	Met	Leu	Val	Asn	Asp
	210					215					220				
Asn	Lys	Val	Leu	Arg	Tyr	Leu	Ala	Val	Leu	Glu	Ser	Pro	Ile	Pro	Glu
225					230					235					240
Asp	Lys	Asp	Arg	Arg	Phe	Val	Phe	Ser	Tyr	Phe	Leu	Ala	Thr	Asp	Met
			245						250					255	
Ile	Ser	Ile	Phe	Glu	Pro	Pro	Val	Arg	Asn	Ser	Gly	Ile	Ile	Gly	Gly
			260					265					270		
Lys	Tyr	Leu	Gly	Arg	Thr	Lys	Val	Val	Lys	Pro	Tyr	Ser	Thr	Val	Asp
		275					280					285			
Asn	Pro	Val	Tyr	Tyr	Gly	Pro	Ser	Asp	Phe	Phe	Ile	Gly	Ala	Val	Ile
	290					295					300				
Glu	Val	Phe	Gly	His	Arg	Phe	Ile	Ile	Leu	Asp	Thr	Asp	Glu	Tyr	Val
305					310					315					320
Leu	Lys	Tyr	Met	Glu	Ser	Asn	Ala	Ala	Gln	Tyr	Ser	Pro	Glu	Ala	Leu
			325						330					335	
Ala	Ser	Ile	Gln	Asn	His	Val	Arg	Lys	Arg	Glu	Ala	Pro	Ala	Pro	Glu
			340					345					350		
Ala	Glu	Ser	Lys	Gln	Thr	Glu	Lys	Asp	Pro	Gly	Val	Gln	Glu	Leu	Glu
		355					360					365			
Ala	Leu	Ile	Asp	Thr	Ile	Gln	Lys	Gln	Leu	Lys	Asp	His	Ser	Cys	Lys
	370					375					380				
Asp	Asn	Ile	Arg	Glu	Ala	Phe	Gln	Ile	Tyr	Asp	Lys	Glu	Ala	Ser	Gly
385					390					395					400
Tyr	Val	Asp	Arg	Asp	Met	Phe	Phe	Lys	Ile	Cys	Glu	Ser	Leu	Asn	Val
			405						410					415	
Pro	Val	Asp	Asp	Ser	Leu	Val	Lys	Glu	Leu	Ile	Arg	Met	Cys	Ser	His
			420					425					430		
Gly	Glu	Gly	Lys	Ile	Asn	Tyr	Tyr	Asn	Phe	Val	Arg	Ala	Phe	Ser	Asn

435 440 445

<210> 5509  
 <211> 818  
 <212> DNA  
 <213> Homo sapiens

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 120  
 ctatgtgaga ggaagtaagt atacacagcg taagaggtgt gataaccaag tcatagaaga  
 180  
 aatgtttgga gaacatggaa tcatgtgaac ttattatgtg gtaagtacag ataccaggg  
 240  
 ctgtcagtct caccatcctt ttctacacat gtggatgctt caggactcca gcctttgagg  
 300  
 atgtggcttt caacttcacc ctacaggaaa ggtagtcaat gtggagaagc cttcagccag  
 360  
 attccaggtc ataattctgaa taagaaaacg cctcctggag taaagccacc tgaaagccat  
 420  
 gtgtgtggag aggtcggcgt gggctatcca tccactgaaa ggcacatcag agatcgctt  
 480  
 ggacgcaaac cctgtgaata tcaggaatgt agacagaagg catatacatg taagccatgt  
 540  
 gggaatgcct ttcgttttca ccactccttt cacatacacg aaaggcctca cagtggagaa  
 600  
 aacctctatg aatgttagga atttcagaaa acattcactt cccccccaaa ccttcaaaga  
 660  
 tgtgaaaatg catagtggag atggacctta caaatgcaag gtgggtagga aaacctttga  
 720  
 ctctcccagt tcatttcgaa tacatggaag atctcattct ggagagaaac ccaatgtgtg  
 780  
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 818

<210> 5510  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

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 Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly  
 35 40 45  
 Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro  
 50 55 60  
 Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys  
 65 70 75 80  
 Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

85 90 95  
 His Ser Gly Glu Asn Leu Tyr Glu Cys  
 100 105

<210> 5511  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 5511  
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 120  
 ctctgctgag ttgctgagag tctgtgttcc tctctccact tataggatgg gtcctcatct  
 180  
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 240  
 atgctgaatt cctctatggc agagatggga ggagaggctc cacgctgggc ctctcagcc  
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<210> 5512  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 5512  
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 1 5 10 15  
 Ile Glu Glu Phe Ser Ile Ile Pro Glu Ala Pro Met Arg Ser Ser Gln  
 20 25 30  
 Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr  
 35 40 45  
 Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu  
 50 55 60  
 Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys  
 65 70 75 80  
 Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu  
 85 90 95  
 Ala Cys Asp Thr Pro  
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<210> 5513  
 <211> 837  
 <212> DNA  
 <213> Homo sapiens

<400> 5513  
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120  
agactcgggg agccattgac catcgtctct gaggatggag actggtggac ggtgctgtct  
180  
gaagtctcag gcagagagta taacatcccc agcgtccacg tggccaaagt ctcccatggg  
240  
tggctgtatg agggcctgag cagggagaaa gcagaggacc tgctgttggt acctgggaac  
300  
cctggagggg ccttcctcat ccgggagagc cagaccagga gaggtcttta ctctctgtca  
360  
gtccgcctca gccgcctgc atcctgggac cggatcagac actacaggat ccactgcctt  
420  
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480  
gaccattact ctgagctggc ggatgacatc tgctgcctac tcaaggagcc ctgtgtcctg  
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720  
gaggtgtgtc ctttggtatg tgcctaggcc caaaggagag gccaaaaggg aaaccaaggc  
780  
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837

&lt;210&gt; 5514

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5514

Xaa	Ser	Leu	Ser	Ser	Ser	Val	Gln	Gly	Gln	Gly	Pro	Val	Thr	Met	Glu
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Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala
		20						25					30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
		35					40					45			
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
	50					55				60					
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
65				70					75					80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
			85					90					95		
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
		100					105					110			
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
		115				120					125				
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
	130				135				140						
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
145				150					155					160	
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[illegible]

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<210> 5515
<211> 420
<212> DNA
<213> Homo sapiens
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120
aagcttcagc tacaagccct tgagcaagag cacaagaagc tggctgcccg ccttgaggaa
180
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240
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300
ctttgtcacc agcacctgct tcatagtctc tctggagtgc caggaacggg tcatatagat
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<212> PRT
<213> Homo sapiens
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Lys	Lys	Met	Gln	Glu	Arg	Met	Ser	Ala	Gln	Leu	Ala	Ala	Ala	Glu	Ser	
			20					25					30			
Arg	Gln	Lys	Lys	Leu	Glu	Met	Glu	Lys	Leu	Gln	Leu	Gln	Ala	Leu	Glu	
		35					40					45				
Gln	Glu	His	Lys	Lys	Leu	Ala	Ala	Arg	Leu	Glu	Glu	Glu	Arg	Gly	Lys	
	50					55					60					
Asn	Lys	Gln	Val	Val	Leu	Met	Leu	Val	Lys	Glu	Cys	Lys	Gln	Leu	Ser	
65					70					75					80	
Ser	Lys	Val	Ile	Glu	Glu	Ala	Gln	Lys	Leu	Glu	Asp	Val	Met	Ala	Lys	
				85					90					95		
Leu	Ala	Ser	Ser	Leu	Cys	His	Gln	His	Leu	Leu	His	Ser	Leu	Ser	Gly	
			100					105					110			
Val	Pro	Gly	Thr	Gly	His	Ile	Asp									

115

120

<210> 5517  
 <211> 804  
 <212> DNA  
 <213> Homo sapiens

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 180  
 caaccaacac atgggtgacat ggtgattgtg ccaacttggt gctcagttat atgcagggcc  
 240  
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 300  
 gagctagtag aatttgagtc tccagggaaa gagctacttg accaaattaa actagtagca  
 360  
 ggtagagcat gaatgacagc atattatacc atcaagatgt tcttagagca gtgtatggat  
 420  
 ggatcgattg tactgccatc agttgtgact gacgttggtat tcaaggagaa agagaaactt  
 480  
 gtttagaaaag cactttgaaa gttttttgag tacgggggtg ccctgtatca ccccgttatg  
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 660  
 atacttccac tcattcagat ggttgcatcc tgccaggcat ccagtgggac tgggaatatg  
 720  
 gacacttgaa cattaaacat cctgaagaat tttggaatga cagggttaca gtgaacataa  
 780  
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 804

<210> 5518  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 5518  
 Xaa Val Trp Pro Lys His Lys Gly Lys Asp Pro Gln Phe Thr Phe Leu  
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 Glu Leu Ser Ser Val Leu Tyr Cys Cys Asp Leu Leu Ile Gly Ile Gly  
 20 25 30  
 Ile Val Val Gly Ser Ser Asp Arg Ile Arg Ala Ser Ser Leu Gln Val  
 35 40 45  
 Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His  
 50 55 60  
 Gly Asp Met Val Ile Val Pro Thr Cys Cys Ser Val Ile Cys Arg Ala  
 65 70 75 80  
 Ser Asp Trp Phe Lys

85

<210> 5519  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 5519  
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 tccttcgcat aacttgtaca ggggtaggta gcataaaaga cagccggtct caagaagcaa  
 120  
 ccatgcgcct cactacttac catgttcctg cgggcattcc cctcccgaag ggagtctctg  
 180  
 aaaacaaaca cacacagaag ttggcgctgg gcaccacatt ctctcttga cctaaccatc  
 240  
 aggaatttgc tgtgccatct gttcataaaa cttagccagg ccagaaagc ttgtcccaac  
 300  
 cacatgctaa gagccaagca gatggaacag aagctcccc aagctgctgg ctcccactat  
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 401

<210> 5520  
 <211> 101  
 <212> PRT  
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 Gln Arg Gln Leu Leu Cys Val Phe Val Phe Arg Asp Ser Leu Arg Glu  
 35 40 45  
 Gly Asn Ala Arg Arg Asn Met Val Ser Ser Glu Ala His Gly Cys Phe  
 50 55 60  
 Leu Arg Pro Ala Val Phe Tyr Ala Thr Tyr Pro Cys Thr Ser Tyr Ala  
 65 70 75 80  
 Lys Glu Thr Lys Pro Ser Ala Cys Leu Phe Pro Leu Leu Ile Ile Gly  
 85 90 95  
 Lys Trp Met Leu Trp  
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<210> 5521  
 <211> 2524  
 <212> DNA  
 <213> Homo sapiens

<400> 5521  
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 120

acagacgcat cgtttctttt ttaatactcc ctaagaaagg gaataacctt caagctggcg  
180  
ggagcaatgg ttcacataaa gaaaggcgag ctgaccagg aggagaagga gctactggaa  
240  
gtcatcgga aaggtactgt ccaagaagct ggaacattat tatccagcaa gaatgttcgt  
300  
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360  
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420  
catggataca cagccctcat gtttgctgca ctttctggta ataaagacat cacatgggta  
480  
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gagagactgg attattacac taagccccag ggactggata aagagccaaa actgccccca  
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1260  
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1320  
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1740

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 1980  
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 2040  
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<210> 5522

<211> 441

<212> PRT

<213> Homo sapiens

<400> 5522

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			20					25					30		
Ser	Ser	Lys	Asn	Val	Arg	Val	Asn	Cys	Leu	Asp	Glu	Asn	Gly	Met	Thr
		35					40					45			
Pro	Leu	Met	His	Ala	Ala	Tyr	Lys	Gly	Lys	Leu	Asp	Met	Cys	Lys	Leu
	50					55					60				
Leu	Leu	Arg	His	Gly	Ala	Asp	Val	Asn	Cys	His	Gln	His	Glu	His	Gly
65				70					75					80	
Tyr	Thr	Ala	Leu	Met	Phe	Ala	Ala	Leu	Ser	Gly	Asn	Lys	Asp	Ile	Thr
			85					90					95		
Trp	Val	Met	Leu	Glu	Ala	Gly	Ala	Glu	Thr	Asp	Val	Val	Asn	Ser	Val
			100					105					110		
Gly	Arg	Thr	Ala	Ala	Gln	Met	Ala	Ala	Phe	Val	Gly	Gln	His	Asp	Cys
		115				120					125				
Val	Thr	Ile	Ile	Asn	Asn	Phe	Phe	Pro	Arg	Glu	Arg	Leu	Asp	Tyr	Tyr
		130				135					140				
Thr	Lys	Pro	Gln	Gly	Leu	Asp	Lys	Glu	Pro	Lys	Leu	Pro	Pro	Lys	Leu

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Ala	Gly	Pro	Leu	His	Lys	Ile	Ile	Thr	Thr	Thr	Asn	Leu	His	Pro	Val
				165					170					175	
Lys	Ile	Val	Met	Leu	Val	Asn	Glu	Asn	Pro	Leu	Leu	Thr	Glu	Glu	Ala
			180					185					190		
Ala	Leu	Asn	Lys	Cys	Tyr	Arg	Val	Met	Asp	Leu	Ile	Cys	Glu	Lys	Cys
		195					200					205			
Met	Lys	Gln	Arg	Asp	Met	Asn	Glu	Val	Leu	Ala	Met	Lys	Met	His	Tyr
	210					215					220				
Ile	Ser	Cys	Ile	Phe	Gln	Lys	Cys	Ile	Asn	Phe	Leu	Lys	Asp	Gly	Glu
225					230					235					240
Asn	Lys	Leu	Asp	Thr	Leu	Ile	Lys	Ser	Leu	Leu	Lys	Gly	Arg	Ala	Ser
			245						250					255	
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&lt;210&gt; 5525

&lt;211&gt; 761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5525

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&lt;210&gt; 5530

&lt;211&gt; 603

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5530

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 <212> DNA  
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<211> 593

<212> PRT

<213> Homo sapiens

<400> 5532

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Gly	Val	Leu	Asp	Val	Ile	Val	Tyr	Ala	Ser	Ala	Ala	Asp	Lys	Met	Lys
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Asn	Arg	Gly	Phe	Ala	Phe	Val	Glu	Tyr	Glu	Ser	His	Arg	Ala	Ala	Ala
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Gln	Ile	Ala	Val	Asp	Trp	Ala	Glu	Pro	Glu	Ile	Asp	Val	Asp	Glu	Asp
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Val	Met	Glu	Thr	Val	Lys	Ile	Leu	Tyr	Val	Arg	Asn	Leu	Met	Ile	Glu
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Thr	Ser	Arg	Glu	Asp	Ala	Val	His	Ala	Met	Asn	Asn	Leu	Asn	Gly	Thr
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Glu	Leu	Glu	Gly	Ser	Cys	Leu	Glu	Val	Thr	Leu	Ala	Lys	Pro	Val	Asp
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Lys	Glu	Gln	Tyr	Ser	Arg	Tyr	Gln	Lys	Ala	Ala	Arg	Gly	Gly	Gly	Ala
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Ala	Glu	Ala	Ala	Gln	Gln	Pro	Ser	Tyr	Val	Tyr	Ser	Cys	Asp	Pro	Tyr

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&lt;210&gt; 5533

&lt;211&gt; 505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5533

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 Glu Asp Ile Glu Pro Asp Arg Asn Leu Pro Val Gly Leu Arg Gln Lys  
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 Ser Leu Thr Glu Lys Thr Pro Thr Gly Thr Phe Ser Arg Glu Ala Leu  
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 Met Ala Tyr Trp Glu Lys Glu Ser Gln Lys Leu Leu Glu Lys Glu Arg  
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 Glu Leu Ile Phe Thr Glu Ser Asn Ser Glu Val Ser Glu Glu Val Tyr  
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&lt;210&gt; 5536

&lt;211&gt; 306

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5536

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Pro Gly Glu Thr Pro Lys His Gln Pro Gly Ser Pro Arg Gly Ser Gly
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Arg Glu Glu Asp Asp Glu Leu Leu Gly Asn Asp Asp Ser Asp Lys Thr
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Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu
65           70           75           80
Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
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Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu
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Thr Leu Val Phe Ala Ile Ala Ile Ser Gly Asn Leu Ser Asn Phe Leu
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Ile His Leu Gly Glu Lys Thr Tyr His Tyr Val Pro Glu Phe Arg Lys
145          150          155          160
Val Ser Ile Ala Ala Thr Ile Ile Tyr Ala Tyr Ala Trp Leu Val Pro
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Leu Ala Leu Trp Gly Phe Leu Met Trp Arg Asn Ser Lys Val Met Asn
      180          185          190
Ile Val Ser Tyr Ser Phe Leu Glu Ile Val Cys Val Tyr Gly Tyr Ser
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Leu Phe Ile Tyr Ile Pro Thr Ala Ile Leu Trp Ile Ile Pro Gln Lys
      210          215          220
Ala Val Arg Trp Ile Leu Val Met Ile Ala Leu Gly Ile Ser Gly Ser
225          230          235          240
Leu Leu Ala Met Thr Phe Trp Pro Ala Val Arg Glu Asp Asn Arg Arg
      245          250          255
Val Ala Leu Ala Thr Ile Val Thr Ile Val Leu Leu His Met Leu Leu
      260          265          270
Ser Val Gly Cys Leu Ala Tyr Phe Phe Asp Ala Pro Glu Met Asp His
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<210> 5537

<211> 2881

<212> DNA

<213> Homo sapiens

<400> 5537

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<210> 5538

<211> 352

<212> PRT

<213> Homo sapiens

<400> 5538

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Ala	Glu	Leu	Arg	His	Leu	Asp	Thr	Gln	Val	Gln	Arg	Cys	Glu	Asp	Ile
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Leu	Gln	Gln	Leu	Gln	Ala	Val	Val	Pro	Gln	Ile	Asp	Met	Glu	Gly	Asp

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Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr Ile		95
	100	105
Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp		110
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Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp		125
	130	135
Ser Tyr Ile Arg Phe Ser Thr Gln Pro Phe Ser Leu Lys Asn Leu Asp		140
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Asn Ser Val His Leu Cys Asn Asn Ser Ile Gln Lys His Leu Glu Asn		155
	165	170
Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser		175
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Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp		190
	195	200
Ser Thr Ile Ile Val Pro Gly Met Lys Asp Ala Val Ile His Ala Leu		205
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Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu Leu		220
	225	230
Tyr Gly Ala Asp Phe Val Phe Gly Glu Asp Phe Gln Pro Trp Leu Ile		235
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Glu Ile Asn Ala Ser Pro Thr Met Ala Pro Ser Thr Ala Val Thr Ala		255
	260	265
Arg Leu Cys Ala Gly Val Gln Ala Asp Thr Leu Arg Val Val Ile Asp		270
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Arg Arg Leu Asp Arg Asn Cys Asp Thr Gly Ala Phe Glu Leu Ile Tyr		285
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Lys Gln Pro Val Thr Thr Ser Pro Ala Ser Thr Pro Arg Pro Ser Cys		300
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Leu Leu Pro Met Tyr Ser Asp Thr Arg Ala Arg Ser Ser Asp Asp Ser		315
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	340	345
		350

&lt;210&gt; 5539

&lt;211&gt; 1887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5539

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           20                  25                  30  
 Ala Ala Met Gly Pro Ser Ala Leu Gly Gln Ser Gly Pro Gly Ser Met  
           35                  40                  45  
 Ala Pro Trp Cys Ser Val Ser Ser Gly Pro Ser Arg Tyr Val Leu Gly  
           50                  55                  60  
 Met Gln Glu Leu Phe Arg Gly His Ser Lys Thr Arg Glu Phe Leu Ala  
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 Thr Phe Thr Val Ala Trp His Pro Lys Arg Pro Leu Leu Ala Phe Ala  
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